

REFERENCE MATERIALS CATALOGUE **ielab 2021**

FOR PHYSICAL-CHEMICAL
AND MICROBIOLOGICAL
LABORATORIES

Issue: January 2021



ielab is a company engaged to provide services and products for the application of quality in testing laboratories, that offers among many others, the organization of international Proficiency Testing Schemes, manufacturing and sale of physical-chemical and microbiological reference materials, technical consultancy of quality systems, etc.

The present catalogue is the result of the work that has been developed by our R+D+i Department and our Quality Department, that have as reference the quality, the independence and to give answer to the technological necessities that are arising in the exercise of our work. They also have given responses to the necessities that the application of the quality requires and the new challenges that continuously arise.



ielab has obtained its accreditation as a Reference Material Producer, following ISO 17034 standard, with file number 01/PMR001. This award is a great achievement for ielab reference materials and thus we become the first Spanish company that earns this type of accreditation as a Reference Material Producer. Due to its characteristics as accredited reference materials and all technical requirements that its production entails, we believe this product will be very useful for the quality controls in many laboratories.

In 2020, **ielab** obtained a new recognition of international acceptance in more than 100 countries and official recognition in the European Union with the support and guarantee of ENAC after the use of its new brand, both as a provider of Proficiency Testing Schemes and in the production of reference materials. With the inclusion of these marks it is achieved that, immediately and easily, the clients and users who receive the certificate or report recognize that the organization that has issued it is internationally accredited and recognized, giving them the necessary confidence in the veracity and technical solvency of the issuer

Many of our physical-chemical reference materials are certified in the process of Proficiency Testing Schemes, reason why new materials with each closed round are included. It is for the reason of this constant process of research, innovation and application to the quality that this catalogue is something dynamic and in a continuous change.

For that reason we invite you to visit our Web page www.ielab.es where you can find our latest catalogue and diverse information that surely will be of your interest. Trusting our cooperation can contribute to the continuous improvement of the quality of your laboratory, we hope you enjoy your visit to our website.

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PHYSICAL-CHEMICAL REFERENCE MATERIALS

ielab presents a wide range of reference materials that have been specially designed to make easy all the quality control tasks accomplished in diagnostic laboratories.

All the supplied material comes accompanied by the corresponding Certificate of Analysis and User Guide.

Properties of the physical-chemical reference materials

ielab reference materials are obtained through Proficiency Testing Schemes accredited by the Spanish National Accreditation Body (ENAC), in which a great number of national and international laboratories take part.

Each of these laboratories that are participating in Proficiency Testing Schemes have different working methodologies, which gives very robust results.

For the production of these materials, the standards established in the ISO 17034 standard, which indicate the general requirements for all the reference materials producers, are followed.

The greatest part of the provided material is of natural origin and with analyte concentration levels similar to real samples that are analyzed in laboratories. Necessary homogeneity and stability tests are made to these materials to calculate the property value according to the ISO GUIDE 35.

The certificate that accompanies the material fulfils the established requirements of the ISO GUIDE 31 including the corresponding homogeneity and stability studies, the statistical study of results and the concentration and uncertainties of the provided materials.

For more information on the batches and materials currently available, do not hesitate to contact ielab (comercial@ielab.es) and request our current materials annex.

ielab has recently obtained the accreditation as a Reference Material Producer, following ISO 17034 standard. Due to its characteristics as accredited reference materials and all technical requirements that its production entails, we believe this product will be very useful for the quality controls in many laboratories.



Advantages of the physical-chemical reference materials

Quality guarantee: For its production the standards established in the ISO 17034 standard are followed, statistical criteria defined in the ISO GUIDE 35 have been used to obtain the property value and the certificate fulfills the ISO GUIDE 31, and at present **ielab** is the first Spanish company Accredited as a Reference Material Producer.

Natural: The greatest part of the provided materials is of NATURAL ORIGIN, allowing to reproduce customary testing conditions.

Stable: The stability of the samples is proven according to the established under the standard ISO 13528:2015, being analyzed by a method accredited under the standard EN ISO/IEC 17025.

Homogeneous: Statistical studies are carried out of the variability, as it is established in the ISO GUIDE 35 and according to the IUPAC protocol, being analyzed by a method accredited under the standard EN ISO/IEC 17025.

Flexible: Materials for various matrixes and with many different parameters are available.

WASTE WATER

Type 1 (part No. 990592)

Type 2 (part No. 990604)

Coming from WWTP with urban or industrial origin. These reference materials are provided in containers of 500 or 100 mL,

Shelf-life: 6 months.

POTABLE WATER

Type 1 (part No. 990593)

Type 3 (part No. 990595)

Drinking waters coming from potable water supply. These reference materials are provided customarily in containers of 500 mL to exception of specific materials for the pH parameter which are packed in glass vials of 100 mL.

Shelf-life: 6 months.

ACCREDITED SLUDGES (part No. 990605)

ielab also has available certified reference material accredited by the Spanish National Accreditation Body (ENAC), of sludges from WWTP with urban or industrial origin. This material is supplied in 65 ml containers containing dry and sieved sludge.



Shelf-life: 12 months.

SLUDGES (part No. 990596)

Coming from WWTP with urban or industrial origin. These materials are provided in containers of 65 mL containing dry and sieved sludge.

Shelf-life: 12 months.

SAMPLE SUPPORTS (part No. 990598)

These reference materials are presented in transparent cases which contain the filters. Each batch of filters consists of three blank filters and three spiked filters.

Shelf-life: 6 months.

SEA WATER (part No. 990599)

Taken directly of the Mediterranean sea. These reference materials are provided in containers of 500 mL, to exception of the specific materials for the pH parameter which are packed in glass vials of 100 mL.

Shelf-life: 6 months.

SOILS (part No. 990600)


These reference materials are presented in bottles containing 65 mL of dried and sieved soil.

Shelf-life: 12 months.

IMPINGER SOLUTIONS (part No. 990597)

These reference materials are provided in containers of 500 mL. A blank reference sample is always included with the spiked sample capture solution.

Shelf-life: 6 months.



If you are interested in the current available batches of each of these physical-chemical matrixes of reference materials, you can contact us by e-mail: comercial@ielab.es or in the phone +34 966 10 55 01

MICROBIOLOGICAL REFERENCE MATERIALS

ielab presents, within the framework of its line of products for microbiological diagnostics, a range of reference materials, which have been specially designed to facilitate all stages of quality control performed in diagnostic laboratories.

ielab has obtained the accreditation as a Reference Material Producer, following ISO 17034 standard. Due to its characteristics as accredited reference materials and all technical requirements that its production entails, we believe this product will be very useful for the quality controls in many laboratories.

Properties of the microbiological reference materials

ielab microbiological reference materials are quantified by certification tests performed by a network of laboratories accredited by ENAC (Spanish National Accreditation Body) according to the norm EN ISO/IEC 17025.

For the production of these materials, we follow the requirements of ISO 17034 standard, which indicate the general requirements for all the producers of reference materials.

All supplied material includes a User Guide and the corresponding Document/ Certificate of Analysis.

ielab has signed a Material Transfer Agreement (MTA) with the Spanish Type Culture Collection (Colección Española de Cultivos Tipo, CECT ®) under the modality 2*, by virtue of which its accredited products are traceable to CECT ® strains, as an internationally recognized Type Culture Collection



*Modality 2: Transfers where a subsequent distribution is authorized by the recipient or buyer of the MGR (Microbial Genetic Resource), as long as the recipient user of the MGR has a demonstrated capacity to maintain the registry of the individuals or institutions to which the MGRs are transferred.

Advantages of the microbiological reference materials

Simplicity: The preparation of the material is extremely simple since it is presented in tablet format that is supplied in a very easy-to-use sterile plastic device or in individual vials, avoiding the need for multiple manipulations.

Rapidity: It takes only 3 steps and 10 minutes to have ready bacterial suspensions of a known count.

Easy storage: In a conventional freezer (-20 ± 5 °C).

Safety: There is no risk of contamination, as manipulation is reduced to the minimum.

Traceability: Strains used come from different Type Culture Collections and bear one subculture from lyophilized reference strain employed (stock strain).

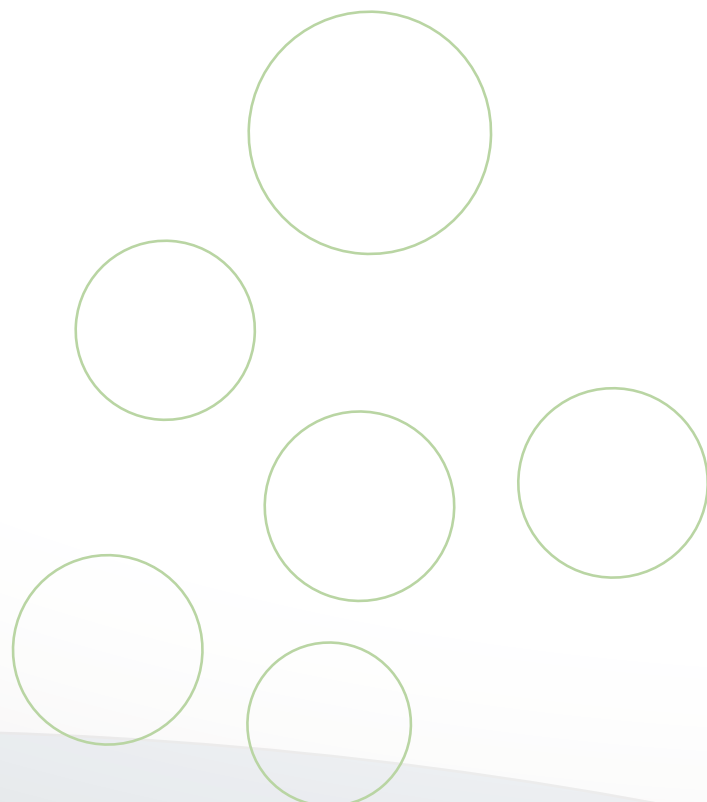
Known concentration: The existing concentration of the material is certified.

Flexibility: There are different formats for diverse microorganisms, and are available in three concentration ranges: low, intermediate and high concentration.

Customization: Besides the species available from stock, there is the possibility of preparing reference material for other microorganisms at a concentration predefined by the client. Please contact our Sales Department for further information.

Quality: **ielab** was awarded the accreditation as a Reference Material Producer, according to ISO 17034 (BACredi)

Price: Very good value for money.



ielab microbiological reference materials products

ielab offers three kinds of microbiological reference materials: General Microbiology, Pharmacopoeia and BACredi Accredited Reference Material.

Besides, there are four possible concentration ranges: low, intermediate, high and extra-high.

CONCENTRATION	GENERAL MICROBIOLOGY	PHARMACOPOEIA	ACCREDITED MATERIAL
LOW	< 100 cfu/tablet	< 100 cfu/0.1mL	< 100 cfu/tablet
INTERMEDIATE	100-1,000 cfu/tablet	N / A	100-1,000 cfu/tablet
HIGH	> 1,000 cfu/tablet	> 100 cfu/0.1mL	> 1,000 cfu/tablet
EXTRA HIGH	N / A	10 ⁵ -10 ⁶ cfu/0.1mL	N / A

The concentration is calculated dissolving one tablet in 20mL of sterile water, following the User Guide that is supplied with the product. Please do not hesitate to contact us at comercial@ielab.es in order to ask about the exact concentrations of the batches we have available at any moment.

On the following table you can see some suggestions about some species you can use in order to test some parameters:

Parameter	Suggested species
Total coliforms	<i>Escherichia coli</i> <i>Citrobacter freundii</i> <i>Klebsiella oxytoca</i> <i>Enterobacter aerogenes</i>
Faecal coliforms	<i>Escherichia coli</i> <i>Klebsiella oxytoca</i> <i>Enterobacter aerogenes</i>
Faecal streptococci / Enterococci	<i>Enterococcus faecalis</i> <i>Enterococcus faecium</i>
Aerobic bacteria at 22°C or 37°C / Total plate count	<i>Candida albicans</i> <i>Enterococcus faecalis</i> <i>Enterococcus faecium</i> <i>Escherichia coli</i>

OTHER MRM SERVICES: TAILOR MADE STRAINS

This year, as a novelty, to expand and give a better service to our customers, ielab offers the possibility of working with strains that are not included in our catalogue and which you are interested in. For this purpose, feel free to contact us to receive personalized and individual attention by our email comercial@ielab.es, or by phone + 34 966 10 55 01.

BAControl

Description: this is a quantitative material in which each tablet contains a specific number of viable and culturable cells, obtained by the manufacturer under the test conditions specified in the Analysis Report.

Applications: it is a material which is appropriate for carrying out routine quality control procedures, such as process controls, creation of control charts, or quality control of culture media.

Shelf-life: it has a shelf life of 12 months after the batch is released. Items supplied will have at least 6 months of shelf life.

Presentation: supplied in boxes containing 10 vials with one tablet each (BAControl-10) or in a sterile dispenser of 5 tablets (BAControl-5).

BACuanti

Description: this is a quantitative material in which each tablet contains a specific number of viable and culturable cells, obtained from the certification studies performed by a network of accredited laboratories according to EN ISO/IEC 17025.

Applications: the material is appropriate for the validation of methods, and quantitative quality controls.

Shelf-life: it has a shelf life of 6 months after the batch is released. Items supplied will have at least 3 months of shelf life.

Presentation: is supplied in a sterile dispenser of 5 tablets.

BACuali

Description: this is a qualitative material in which the identity of the microorganism is stated.

Applications: appropriate for validation of qualitative methods and for the accomplishment of quality controls where quantification is not required.

Shelf-life: it has a shelf life of 12 months after the batch is released. Items supplied will have at least 6 months of shelf life.

Presentation: supplied in a sterile dispenser of 5 tablets.

	BACControl	BACuanti	BACuali
Description	<ul style="list-style-type: none"> Quantitative material, in tablets format 	<ul style="list-style-type: none"> Certified quantitative material, in tablets format 	<ul style="list-style-type: none"> Qualitative material, in tablets format
Applications	<ul style="list-style-type: none"> Rutine quality controls Process controls Control chart Quality control son cultura media 	<ul style="list-style-type: none"> Method validation Quality controls 	<ul style="list-style-type: none"> Rutine quality controls which do not need quantification
Shelf life	<ul style="list-style-type: none"> 12 months 	<ul style="list-style-type: none"> 6 months 	<ul style="list-style-type: none"> 12 months
Presentation	<ul style="list-style-type: none"> 10 vials box Dispenser of 5 tablets 	<ul style="list-style-type: none"> Dispenser of 5 tablets 	<ul style="list-style-type: none"> Dispenser of 5 tablets
Available concentrations	<ul style="list-style-type: none"> Low Intermediate High Extra-high 	<ul style="list-style-type: none"> Low Intermediate High Extra-high 	<ul style="list-style-type: none"> N/A



BAControl - 10

quantitative reference material

BAControl - 5

quantitative reference material

USER GUIDE

A - Reception and storage

1) Check the correct reception of the reference material:

- that it contains dry ice
- that the box/bag is sealed
- that the Analysis Report is included



2) Keep in the freezer at $-20\pm 5^{\circ}\text{C}$

B - Preparation

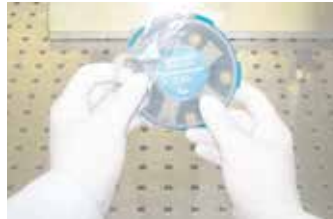
3) Unseal the box tearing the cellophane bag that wraps it, or open the aluminum bag by the marked line.



4) Get the vials containing the tablets or the tablet dispenser from the bag, under aseptic conditions.

5) Keep the box / aluminium bag containing the rest of vials/tablets in the freezer at $-20\pm 5^{\circ}\text{C}$.





6) Under aseptic conditions, remove the safety aluminium seal and open the vial, or break the safety wrapper. For the latter, turn the lid following the direction of the arrow until the opening matches with one tablet.

7) Under aseptic conditions, add 20mL of sterile distilled water to the vial or dispense the tablet into a sterile tube containing 20 mL of sterile distilled water.



8) Let the tablet to be dissolved for 10 minutes at room temperature, shaking it gently every 2 minutes.

C - Final suspension

9) Once dissolved, the suspension of the selected microorganism has the concentration indicated on the enclosed Analysis Report.

10) This suspension is stable for 8 hours while keeping it refrigerated.



ANALYSIS REPORT



BAControl -5

(reference material, RM)



Producer

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03114 Alicante (Spain)
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Description

Part No.: 990210
Microorganism: *Bacillus subtilis* V587
traceable to CECT 356 (corresponds to ATCC 6633; WDCM 00003), with one passage from the Culture Collection reference stock strain.
Batch No.: PBS02110
Manufacturing date: 02/Nov/2020
Expiry date: 25/Nov/2021
Format: freeze-dried tablet

Authenticity proof of the used Culture Collection strain

Biochemical identification tests

Safety information

Risk group 2

Storage conditions

Keep at $-20 \pm 5^\circ\text{C}$

Intended use

Internal quality controls in terms of precision (control of process, control charts and culture media quality controls).

Reconstitution conditions

(indicated in the User Guide)

Solvent: Sterile distilled water
Volume: 20 mL
Reconstitution time: 10 minutes

Producer analysis conditions

Laboratory: one laboratory following ISO 17025 requirements
Dilutions: up to 10^3
Analyzed volume: 1 mL
Technique: Filtration
Incubation temperature: $30 \pm 1^\circ\text{C}$
Incubation period: 48 ± 2 hours
Culture medium: Nutrient agar + MnSO_4
Filtration membranes: Mixed cellulose esters

Quality controls in the described analysis conditions

Contamination: Not detected
Homogeneity: Homogeneous ($u_H = 0.028$ log)
Stability: Stable ($u_E = 0.060$ log)

Results obtained in the reconstitution volume

Percentage of the analyzed batch: 15%
Number of tests: 50
Obtained value per tablet: 1.48×10^6 cfu
95% Confidence interval: 4.04×10^5 - 5.39×10^6 cfu

Alicante, November 25th 2020.

Raquel Murtula Corbí
Technical manager of microbiology area

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CERTIFICATE OF ANALYSIS



BACuanti

(certified reference material, CRM)



Certified by

ielab Calidad, S.L.
C/ Dracma, 7
Pol. Ind. Las Atalayas
03114 Alicante (Spain)
T +34 966 10 55 01

Description

Part No.: 990079
Microorganism: *Escherichia coli* V6 traceable to CECT 434 (corresponds to ATCC 25922; WDCM 00013), with one passage from the Culture Collection reference stock strain.
Batch No.: PEC14100
Manufacturing date: 09/Nov/2020
Expiry date: 09/May/2021
Format: freeze-dried tablet

Authenticity proof of the used Culture Collection strain

Biochemical identification tests

Safety information

Risk group 2

Intended use

Validation (bias, accuracy and precision) of microbiological methods. Preparation of work reference samples for internal laboratory analyses.

Reconstitution conditions (indicated in the User Guide)

Solvent: Sterile distilled water
Volume: 20 mL
Reconstitution time: 10 minutes

Storage conditions

Keep at $-20 \pm 5^\circ\text{C}$

Certification study (Analysis conditions)

Laboratories: 6 laboratories following ISO 17025 requirements
Metrological traceability: internal procedure based on ISO 9308-1
Dilutions: Up to 10^3
Analyzed volume: 2 mL
Technique: Filtration
Incubation temperature: $37 \pm 1^\circ\text{C}$
Incubation period: 24 ± 2 hours

Quality controls in the described analysis conditions

Cross contamination: Not detected
Homogeneity: Homogeneous ($u_H = 0.039$ log)
Stability: Stable ($u_E = 0.074$ log)

Results obtained in the reconstitution volume

Analyzed percentage of the batch: 13%
Numer of analysis: 50
Certified value per tablet: 1.92×10^5 cfu
Standard uncertainty ($k = 1$): $\pm 2.9\%$
95% confidence interval: $9.54 \times 10^4 - 3.84 \times 10^5$ cfu

Alicante, November 09th 2020.

Raquel Múrtula Corbí
Technical manager of microbiology area

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ANALYSIS REPORT



BACuali (reference material, RM)



Producer

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03114 Alicante (Spain)
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Reconstitution conditions (indicated in the User Guide)

Solvent: Sterile water
Volume: 20 mL
Reconstitution time: 10 minutes

Description

Part No.: 990061
Microorganism: *Escherichia coli* V6 traceable to CECT 434 (corresponds to ATCC 25922; WDCM 00013), with one passage from the Culture Collection reference stock strain.
Batch No.: PEC02040
Manufacturing date: 02/April/2020
Expiry date: 27/April/2021
Format: freeze-dried tablet

Producer analysis conditions

Laboratory: one laboratory following ISO 17025 requirements
Dilutions: Up to 10^3
Analyzed volume: 2 mL
Technique: Filtration
Incubation temperature: $37 \pm 1^\circ\text{C}$
Incubation period: 24 ± 2 hours
Culture medium: CCA (Chromogenic coliform agar)
Filtration membranes: Mixed cellulose esters

Authenticity proof of the used Culture Collection strain

Biochemical identification tests

Quality controls in the described analysis conditions

Percentage of the analyzed batch: 15%
Contamination: Not detected
Homogeneity: Homogeneous ($u_H = 0.036 \log$)
Stability: Stable ($u_E = 0.074 \log$)

Safety information

Risk group 2

Storage conditions

Keep at $-20 \pm 5^\circ\text{C}$

Intended use

Preparation of work reference samples for internal quality controls in terms of precision.

Alicante, April 27th 2020.

Raquel Múrtula Corbí
Technical manager of microbiology area

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comercial@ielab.es
www.ielab.es

If you cannot find the strain you are looking for, please feel free to contact us by our email comercial@ielab.es, or by phone + 34 966 10 55 01

General Microbiology

Applications: methods validation, research projects, internal quality controls, equipment calibration, quality control of culture media, microbial detection and count, etc.

The concentration is calculated dissolving one tablet in 20mL of sterile water, following the User Guide that is provided with the product.

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Achromobacter denitrificans</i> (CECT 449)	ATCC 15173; NCTC 8582; CCM 3427; CCRC 12838; CCRC 14342; CCUG 407; CIP 77.15; DSM 4612; DSM 30026; Fredrich 55B; IFO (now NBRC) 15125; JCM 5490; Kosako 85022; LMG 1231; LMG 3510; NCIMB 11961; RH 12; RIMD 0114003; USCC 1474; USCC 2521	BACuali	992727 Qualitative material		
<i>Acinetobacter sp</i> (CECT 4632)	CCUG 31979; NCIMB 9871; strain CHol	BACuali	992729 Qualitative material		
<i>Aerococcus viridans</i> ¹ (CECT 978)	ATCC 11563; CCM 1914; DSM 20340; IFO 12219; NCTC 8251; NCDO 1225; R.E.O. Williams M1; WDCM 00061	BACuali	992730 Qualitative material		
<i>Aspergillus brasiliensis - niger</i> ² (CECT 2574)	WDCM 00053; ATCC 16404; B 39906; B 42936; CABIM 149007; CBS 733.88; CCTM La 2212; DSMZ 1387; DSMZ 1988; FRR 6034; IFO 9455; IHEM 2311; IHEM 3766; IHEM 3794; IMI 149007; MUCL 29039; NCPF 2275; Ringel WLRI 034(120); UMIP 1431.8	BACControl-5	990160	990386	990161
		BACControl-10	990164	990387	990165
		BACuanti	990189	990388	990190
		BACuali	990167 Qualitative material		
<i>Aspergillus caesiellus</i> (CECT 20807)	WDCM 00183; ATCC 42693; FRR 2176; IAM 13845; JCM 12743	BACuali	992508 Qualitative material		
<i>Aspergillus niger</i> (CECT 2807)	ATCC 6275; CBS 131.52; CBS 113.50; CBS 769.97; CCTM La 2216; DSM 1957; Friedrich A98; IFO 6341; IMI 045551; KCC F-0086; MUCL 19002; NRRL 334; QM 324; QM 458; strain AM 324; strain LA 2216; Thom 4247; USDA TC 215-4247; VTT D-81078; WB 334; WDCM 00144	BACControl-5	992643	992644	-
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992642 Qualitative material		
<i>Bacillus cereus</i> (CECT 193)	WDCM 00001; ATCC 9634; ATCC 11778; BTCC 924; BUCAV 424; CCM 869; CCRC 10446; CCTM La 1138; CCUG 7415; CCUG 10781; CFBP 488; CFBP 1964; CIP 64.52; CNCTC Bc 7/69; DSMZ 345; DSMZ 4490; FDA PCI 213; HNCMB 100003; IFO 3836; IL 1; IMET 10884; LMD 61.21; LMG 8221; NCFB 720; NCIMB 8012; NCIMB 9231; NCTC 10320; PCI 213; PCM 1948; PCM 2019; Prunier 104-4; Waksman strain O	BACControl-5	990316	990389	990321
		BACControl-10	990317	990390	990322
		BACuanti	990323	990391	990326
		BACuali	990315 Qualitative material		
			Part No.		

¹ The use of this strain is recommended in ISO 11133:2014

² This strain is indicated by European Pharmacopoeia to be employed in pharmaceutical processes and it is available also at concentrations of <100 ufc/0,1 mL, >100 ufc/0,1mL or 10⁵-10⁶ ufc/0,1mL.

If you cannot find the strain you are looking for, please feel free to contact us by our email **comercial@ielab.es**, or by phone + 34 966 10 55 01

General Microbiology

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Bacillus cereus</i> (CECT 131)	ATCC 10876; CCRC 11267; FIRDI BA14; Hankey B43; IAM 1656; IAW 2; LMD 65.1; NCFB 721; NCIMB 8579; NCTC 7464; NRRL B-569; NRS 1256; PCM 2003	BACControl-5	992582	992583	992584
		BACControl-10	992585	992586	992587
		BACuanti	992588	992589	992590
		BACuali	992591 Qualitative material		
<i>Bacillus cereus</i> <i>k250</i> (CECT 4094)	CCTM La 2868; CIP 69.12; Chabbert K250 TR; NCTC 10989	BACuali	992695 Qualitative material		
<i>Bacillus cereus</i> (CECT 148)	ATCC 14579; NCTC 2599; CCEB 625; CCM 2010; CCRC 10603; CCRC 11026; CCTM La 3674; CCUG 7414; CIP 66.24; DSM 31; FIRDI 603; Ford 13; Gibson 971; IAM 12605; JCM 2152; LMD 75.8; LMG 6923; NCFB 1771; NCIMB 9373; OUT 8406; VTT E-93143	BACuali	992641 Qualitative material		
<i>Bacillus subtilis</i> ^{1,2} (CECT 356)	WDCM 00003; ATCC 6633; BTCC 7241; BUCSAV 425; CCM 1999; CCRC 10447; CCTM La 2114; CCUG 10779; CFBP 1963; CIP 52.62; CNCTC Bs 8/58; DSMZ 347; GISK 010011; Hankey B14; HMGB B100; HNCMB 100007; IAM 1069; IAW 15; IFO 3134; IFO 13720; IL 13; IMET 10880; JCM 2499; LMD 89.157; LMD 47.15; LMG 8197; NCAIM B.01268; NCFB 1733; NCIMB 8566; NCTC 10400; NRRL NRS-231; NRS 231; PCM 219; PCM 1949; PCM 2021; PZH 729; VKM 720; VTT E-85231; WHO 9	BACControl-5	990208	990392	990210
		BACControl-10	990209	990393	990211
		BACuanti	990212	990394	990213
		BACuali	990207 Qualitative material		
<i>Campylobacter jejuni</i> ¹ (CECT 7572)	ACM 5044; AS-83-79; ATCC 33291; CCUG 33057; CIP 111052; WDCM 00005	BACControl-5	-	-	-
		BACControl-10	992769	992770	992768
		BACuanti	-	-	-
		BACuali	-		
<i>Candida albicans</i> ² (CECT 1394)	WDCM 00054; ATCC 10231; B 42904; CBS 6431; CCTM La 2785; CCY 29-3-106; DSMZ 1386; Emmons 3149; HAMB1 484; IFO 1594; IHEM 4263; JCM 2085; MUCL 30114; NCPF 3179; NCYC 1363; NIH 3147; UMIP 48.72; VTT C-85161	BACControl-5	990158	990395	990159
		BACControl-10	990162	990396	990163
		BACuanti	990191	990397	990192
		BACuali	990166 Qualitative material		
<i>Candida dubliniensis</i> (CECT 11455)	CBS 7987; NCPF 3949; NRRL Y-17841; PYCC 8337	BACuali	992731 Qualitative material		
<i>Candida lusitanae</i> (CECT 12888)	IFI 1362	BACuali	992732 Qualitative material		

Part No.

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General Microbiology

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Citrobacter freundii</i> (CECT 4626)	WDCM 00077; NCTC 6272; NCIMB 8645; strain B	BACControl-5	990100	990398	990101
		BACControl-10	990129	990399	990130
		BACuanti	990068	990400	990082
		BACuali	990067 Qualitative material		
<i>Citrobacter freundii</i> ¹ (CECT 7464)	WDCM 00006; ATCC 43864; CCUG 53829; CIP 103547; LMG 21265; LRA 117.03.76	BACControl-5	992602	992603	992604
		BACControl-10	992605	992606	992607
		BACuanti	992608	992609	992610
		BACuali	992523 Qualitative material		
<i>Clostridium bifermentans</i> ¹ (CECT 550)	WDCM 00079; NCTC 506; CIP 110068; CN 4781; NCFB 1711; NCIMB 506; F1	BACControl-5	990516	990519	990522
		BACControl-10	990517	990520	990523
		BACuanti	990518	990521	990524
		BACuali	990525 Qualitative material		
<i>Clostridium perfringens</i> ¹ (CECT 7468)	ATCC 12916; CCM 7176; NCIMB 13079; NCTC 8238; NRRL B-23850; 281/50; WDCM 00080	BACuali	992652 Qualitative material		
<i>Clostridium perfringens</i> ¹ (CECT 376 T)	WDCM 00007; ATCC 13124; ATCC 19408; CCM 5744; CCRC 10913; CCTM La 2957; CCUG 1795; CIP 103409; CN 1491; CNCTC CI 68/83; DSMZ 756; FIRDI 913; JCM 1290; LMD 89.165; LMG 11264; NCAIM B.01417; NCIMB 6125; NCTC 6125; Schmidt S 107	BACControl-5	990098	990401	990099
		BACControl-10	990131	990402	990132
		BACuanti	990066	990403	990081
		BACuali	990065 Qualitative material		
<i>Clostridium sporogenes</i> (CECT 797)	ATCC 11437; CCRC 13856; CCTM La 3546; CCUG 31316; CIP 100651; IFO 14293; McClung 2006; NCAIM B.01416; NCIMB 12343	BACControl-5	990215	990404	990217
		BACControl-10	990216	990405	990218
		BACuanti	990219	990406	990220
		BACuali	990214 Qualitative material		
<i>Clostridium sporogenes</i> ¹ (CECT 485)	WDCM 00008; ATCC 19404; CCM 4409; CCRC 11258; CCTM La 2951; CCUG 7489; CCUG 18371; CIP 79.3; CNCTC CI 66/79; DSMZ 1664; LMD 85.28; LMG 10143; NCFB 1710; NCIMB 532; Robertson SR5	BACControl-5	990285	990407	990291
		BACControl-10	990286	990408	990292
		BACuanti	990293	990409	990296
		BACuali	990284 Qualitative material		
			Part No.		

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<i>Clorynebacterium jeikeium</i> (CECT 760)	ATCC 33031; CCUG 28786; Furness 418H	BACuali	992734 Qualitative material		
<i>Clorynebacterium pseudodiphtheriticum</i> (CECT 755)	ATCC 7091; ATCC 10700; NCTC 11136; Barksdale 10700; CCM 2821; CCRC 10656; CCTM La 3518; CCUG 27539; CIP 103420; CNCTC Psdi 5/78; Coffey 153; GISK 090497; PCM 2051	BACuali	992733 Qualitative material		
<i>Cronobacter sakazakii</i> (CECT 858)	ATCC 29544; CCRC 13988; CDC 4562-70; CDC 78-067947; CIP 103183; CNCTC Eb 20/83; DSM 4485; JCM 1233; Kosako 216; LMG 5740; NCTC 11467; CL783/77; Sakazaki 216; WDCM 00214	BACControl-5	992650	992651	-
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992649 Qualitative material		
<i>Enterobacter aerogenes</i> ¹ (CECT 684 T)	WDCM 00175; ATCC 13048; CCRC 10370; CCTM La 2835; CCUG 1429; CDC 819-56; CIP 60.86; CNCTC Ae 10/86; CUETM 77-29; FIRDI 370; HAMBI 101; HAMBI 1276; IAM 12348; IFO 13534; JCM 1235; Kosako 226; LMG 2094; LMG 2968; NCIMB 10102; NCTC 10006; PCM 532; RIMD 0505001; Sakazaki 226; VTT E-88325	BACControl-5	990380	990410	990381
		BACControl-10	990467	990411	990470
		BACuanti	990468	990412	990471
		BACuali	990469 Qualitative material		
<i>Enterobacter cloacae</i> (CECT 5075)	A8; ATCC 23355; CCUG 33777; LRA001.09.075; WDCM 00082	BACuali	992740 Qualitative material		
<i>Enterococcus casseliflavus</i> (CECT 8430)	ATCC 700327; 9199	BACuali	992657 Qualitative material		
<i>Enterococcus faecalis</i> ¹ (CECT 795)	ATCC 29212; CCM 4224; CCRC 10789; CCUG 7739; CCUG 9997; CIP 103214; CNCTC Str 17/88; DSM 2570; JCM 2875; Kaiser-Permanente strain Portland; LMG 8146; LMG 8222; NCIMB 13280; WDCM 00087	BACControl-5	992654	992655	992703
		BACControl-10	992701	992702	992728
		BACuanti	-	-	992700
		BACuali	992653 Qualitative material		
<i>Enterococcus faecalis</i> ¹ (CECT 481 T)	WDCM 00009; ATCC 19433; CCRC 10066; CCUG 19916; CIP 103015; CNCTC Str 3/86; DSMZ 20478; FIRDI 66; HNCMB 80171; JCM 5803; LMG 7937; NCAIM B.01312; NCFB 581; NCTC 775; Tissier; RIMD 3116001; VTT E-93203	BACControl-5	990298	990413	990304
		BACControl-10	990299	990414	990305
		BACuanti	990306	990415	990309
		BACuali	990297 Qualitative material		
			Part No.		

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			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Enterococcus faecium</i> (CECT 410 T)	WDCM 00010; ATCC 19434; CCRC 10067; CCTM La 2367; CCUG 542; CIP 103014; DSMZ 20477; GIFU 8355; JCM 5804; LMG 8149; LMG 11423; NCFB 942; NCIMB 11508; NRIC 1145; strain OJ; VTT E-93204	BACControl-5	990096	990416	990097
		BACControl-10	990133	990417	990134
		BACuanti	990064	990418	990080
		BACuali	990063 Qualitative material		
<i>Enterococcus faecium</i> ¹ (CECT 8108)	ATCC 6057; CCM 2308; CIP 106742; DSM 2146; LMG 15709; NCIMB 8842; Sherman 24; WDCM 00177	BACControl-5	992756	992758	992725
		BACControl-10	992757	992759	992726
		BACuanti	-	-	-
		BACuali	992656 Qualitative material		
<i>Enterococcus hirae</i> (CECT 4081)	ATCC 10541; CCRC 11547; CCUG 32258; CECT 214; CIP 58.55; CNCTC Str 6/58; DSM 3320; FDA M19; IAW 143; LMG 10274; NCIMB 8192; PCI 1341; WDCM 00011	BACControl-5	-	-	992771
		BACControl-10	-	-	992772
		BACuanti	-	-	-
		BACuali	992779 Qualitative material		
<i>Escherichia coli</i> ^{1,2} (CECT 516)	WDCM 00012; ATCC 8739; CCRC 11634; CCTM La 2194; CCUG 10979; CIP 53.126; DSMZ 1576; Crooks; IFO 3972; IMET 11121; LMG 8063; NCFB 904; PCM 2561; VTT E-76039	BACControl-5	990169	990419	990171
		BACControl-10	990170	990420	990172
		BACuanti	990173	990421	990174
		BACuali	990168 Qualitative material		
<i>Escherichia coli</i> ¹ Recommended for test based on defined substrate technology. (CECT 515 T)	WDCM 00090; ATCC 11775; NCTC 9001 BTCC U5/41; CAPM 6101; CCM 5172; CCRC 10675; CCTM La 2067; CCUG 24; CIP 54.8; CN 4382; CNCTC Eck 58/59; CNCTC Eck 206/59; DSMZ 30083; FIRDI 675; GISK 240001; IAM 12119; JCM 1649; Kauffmann U 5/41; LMD 54.8; LMG 2092; NCFB 1989; NCIMB 11943; PCM 172; PCM 321; SSIC U 5/41; USCC 2054	BACControl-5	990496	990499	990502
		BACControl-10	990497	990500	990503
		BACuanti	990498	990501	990504
		BACuali	990505 Qualitative material		
<i>Escherichia coli</i> ¹ (CECT 434)	WDCM 00013; ATCC 25922; CCM 3954; CCRC 14902; CCTM La 2184; CCUG 7736; CCUG 17620; CCUG 21456; CIP 76.24; CNCTC Ec 327/73; DSM 1103; FDA Seattle 1946; GISK 240533; HER 1176; IFO 15034; JCM 5491; LMG 8223; NCIMB 12210; PCM 2057	BACControl-5	990094	990422	990095
		BACControl-10	990135	990423	990136
		BACuanti	990062	990424	990079
		BACuali	990061 Qualitative material		
Part No.					

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			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Escherichia coli</i> (CECT 405)	ATCC 10536; NCTC 10418; PC1-540; WHO-5; strain Macleod	BACControl-5	992538	992539	992540
		BACControl-10	992541	992542	992543
		BACuanti	992556	992557	992558
		BACuali	992524 Qualitative material		
<i>Escherichia coli</i> ¹ (CECT 8296)	NCTC 13167; WDCM 00179; WR1	BACControl-5	-	-	992742
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	-		
<i>Escherichia coli h</i> (CECT 9153)	WDCM 00202; NCTC 13216; CCM 7395	BACControl-5	992544	992545	992546
		BACControl-10	992547	992548	992549
		BACuanti	992559	992560	992561
		BACuali	992522 Qualitative material		
<i>Escherichia coli</i> <i>K12</i> (CECT 433)	CCTM La 2193; CIP 54.117; IFO 3301; Lederberg K12; NCTC 10538; PCM 2560; K12	BACControl-5	-	-	992632
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992778 Qualitative material		
<i>Escherichia coli</i> <i>O15:H7</i> (CECT 4972)	ATCC 700728; NCTC 12900; CCM 4787; JCM 18426; LMG 21756; LMG 21763; VTT E-011782; WDCM 00014	BACuali	992658 Qualitative material		
<i>Eurotium rubrum</i> (CECT 20808)	WDCM 00184; ATCC 42690; FRR 1968; IAM 13896; JCM 22919	BACuali	992509 Qualitative material		
<i>Klebsiella oxytoca</i> (CECT 860 T)	ATCC 13182; CCRC 13985; CCUG 20633; CIP 103434; CNCTC Klp 92/83; CUETM 77-113; DSM 5175; Jain 497-2; JCM 1665; Kosako 82060; LMG 3055; NBRC 105695; NCIMB 12259; RH 497-2; Sakazaki 181	BACControl-5	990343	990425	990349
		BACControl-10	990344	990426	990350
		BACuanti	990351	990427	990354
		BACuali	990342 Qualitative material		
<i>Klebsiella pneumoniae</i> ¹	WDCM 00206	BACControl-5	990680	990683	990686
		BACControl-10	990681	990684	990687
		BACuanti	990682	990685	990688
		BACuali	990689 Qualitative material		
			Part No.		

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<i>Klebsiella pneumoniae</i> (CECT 143)	API 0120873; ATCC 13883; NCTC 9633; CCRC 10692; CCTM La 1906; CCUG 225; CDC 298-53; CIP 82.91; CUETM 78-55; CUETM 78-60; CUETM 79-299; DSM 30104; FIRDI 692; GIFU 2924; IAM 12351; IFO 14940; JCM 1662; KM 2924; Kosako 82057; LMG 2095; LMG 3132; LMG 3508; LMG 3509; NCIMB 13281; WDCM 00097	BACControl-5	992688	992689	992766
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	-		
<i>Klebsiella pneumoniae</i> (CECT 8453)	ATCC 4352; CECT 5307; CIP 104216; IAM 12015; LMG 3128; NCIB 10341; WDCM 00192	BACControl-5	992690	992691	
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	-		
<i>Kocuria rhizophila</i> (CECT 241)	ATCC 9341; CCM 552; CCUG 10782; DSM 348; FDA PCI 1001; FIRDI 449; HNCMB 117001; IAM 1099; IFO 12708; IMET 10397; LMG 8194; LMG 8764; LMG 8789; LMG 8816; NCDO 758; NCIMB 8553; NCTC 8340; USCC 1935	BACuali	992623 Qualitative material		
<i>Lactobacillus acidophilus</i> (CECT 903)	ACA-DC 0111; ATCC 4356; CCRC 10695; CCUG 5917; CIP 76.13; DSM 20079; FIRDI 695; HAMB1 84; Hansen L917; IFO 13951; IID 893; IMET 10710; JCM 1132; Kulp SCAV; LMG 7943; LMG 8150; LMG 9433; NCIMB 8690; NRRL B-4495; Rogosa 210X; VPI 6032; VTT E-87276; WDCM 00098	BACuali	992659 Qualitative material		
<i>Lactobacillus delbrueckii subsp. lactis</i> (CECT 282)	ATCC 7830; BUGSAV 244; CCM 2772; CCRC 11051; CCRC 14067; CCTM La 1131; CCUG 19776; CIH 924; CIP 53.61; CNCTC 7; CSCC 3100; DSM 20355; FIRDI 1051; IAM 12066; IFO 3376; JCM 1557; LMD 49.7; LMG 6401; McCoy Ld5; NCFB 302; PCM 2603; Tittsler 313; USDA 313	BACuali	992630 Qualitative material		
<i>Lactococcus lactis</i> ¹ (CECT 185 T)	WDCM 00016; ATCC 9936; ATCC 19435; Bridge PB48; Bridge PB93; BUGSAV 302; Cayeux N30; CCM 1877; CCRC 12312; CCTM La 3436; CCUG 7980; CCUG 32211; CIP 70.56; CNCTC Str 25/58; DSMZ 20481; Feltham K466; HNCMB 80146; IMET 10699; JCM 5805; Jones W59; Lancefield C559; LMG 6890; NCFB 604; NCTC 6681; Shattock lactis OJ; USCC 1394; VTT E-90395	BACControl-5	992592	992593	992594
		BACControl-10	992595	992596	992597
		BACuanti	992598	992599	992600
		BACuali	992601 Qualitative material		
<i>Legionella anisa</i> ¹ Recommended in assays following the current Norm ISO 11731 (cellulose filters). (CECT 8177 T)	WDCM 00106; ATCC 35292; NCTC 11974	BACControl-5	990526	990529	990532
		BACControl-10	990527	990530	990533
		BACuanti	990528	990531	990534
		BACuali	990535 Qualitative material		
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<i>Legionella anisa</i> ¹ policarbonate Recommended in assays following the current Norm ISO 11731 (policarbonate/nylon filters). (CECT 8177 T)	WDCM 00106; ATCC 35292; NCTC 11974	BAControl-5	-	-	990537
		BAControl-10	-	-	990538
		BACuanti	-	-	990536
		BACuali	-		
<i>Legionella bozemanæ</i> (CECT 7276)	ATCC 33217; CCUG 11880; NCTC 11368	BAControl-5	-	992745	-
		BAControl-10	-	992746	-
		BACuanti	-	-	-
		BACuali	-		
<i>Legionella jordanis</i> Recommended in assays following the current Norm ISO 11731 (cellulose filters). (NCTC 11533)	ATCC 33623; BL 540	BAControl-5	990124	990431	990125
		BAControl-10	990139	990432	990140
		BACuanti	990127	990433	990128
		BACuali	990126 Qualitative material		
<i>Leg. jordanis</i> policarbonate Recommended in assays following the current Norm ISO 11731 (policarbonate/nylon filters). (NCTC 11533)	ATCC 33623; BL 540	BAControl-5	-	-	990495
		BAControl-10	-	-	990494
		BACuanti	-	-	990493
		BACuali	-		
<i>Legionella longbeachæ</i> (CECT 9955 T)	ATCC 33462; Long Beach 4; NCTC 11477	BACuali	992631 Qualitative material		
<i>Legionella pneumophila</i> sg.1 ¹ Recommended in assays following the current Norm ISO 11731 (cellulose filters). (CECT 7109 T)	WDCM 00107; ATCC 33152; Philadelphia 1; CCUG 9568; DSM 7513; JCM 7571; NCTC 11192	BAControl-5	990102	990428	990103
		BAControl-10	990137	990429	990138
		BACuanti	990073	990430	990078
		BACuali	990072 Qualitative material		
<i>Leg.pneumophila</i> policarbonate sg.1 ¹ Recommended in assays following the current Norm ISO 11731 (policarbonate/nylon filters). (CECT 7109 T)	WDCM 00107; ATCC 33152; Philadelphia 1; CCUG 9568; DSM 7513; JCM 7571; NCTC 11192	BAControl-5	-	-	990477
		BAControl-10	-	-	990478
		BACuanti	-	-	990077
		BACuali	-		

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<i>Legionella pneumophila</i> sg.4 ¹ (CECT 8343)	Los Angeles-1; ATCC 33156; NCTC 11233; WDCM 00180	BAControl-5	992661	992662	-
		BAControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992660 Qualitative material		
<i>Legionella pneumophila</i> sg.5 Recommended in assays following the current Norm ISO 11731 (cellulose filters). (CECT 7274)	ATCC 33216; CCUG 13399; Dallas 1E	BAControl-5	990482	990484	990486
		BAControl-10	990483	990485	990487
		BACuanti	990488	990489	990490
		BACuali	990481 Qualitative material		
<i>Legionella pneumophila</i> sg.5 Recommended in assays following the current Norm ISO 11731 (polycarbonate/nylon filters). (CECT 7274)	ATCC 33216; CCUG 13399; Dallas 1E	BAControl-5	-	-	992776
		BAControl-10	-	-	992777
		BACuanti	-	-	992775
		BACuali	Qualitative material		
<i>Listeria innoqua</i> (CECT 910 T)	WDCM 00017; ATCC 33090; CCM 4030; CCRC 14843; CCTM La 2676; CIP 80.11; CNCTC Li 71/89; DSMZ 20649; LMG 11387; NCTC 11288; Seeliger Li 58; SLCC 3379 ATCC 33090	BAControl-5	992572	992573	992574
		BAControl-10	992575	992576	992577
		BACuanti	992578	992579	992580
		BACuali	992581 Qualitative material		
<i>Listeria ivanovii</i> (CECT 913)	ATCC 19119; CCM 5884; CCRC 14844; CCTM La 2680; CIP 78.42; Donker-Voet 74a; DSM 20750; LMG 11388; NCTC 11846; Seeliger Li 1979; SLCC 2379; strain SV5; WDCM 00018	BACuali	992663 Qualitative material		
<i>Listeria monocytogenes</i> (CECT 935)	WDCM 00021; ATCC 13932; CCM 5580; CCTM La 1206; CIP 59.53; CNCTC Li 19/58; IID 581; NCTC 10527; Paterson 1071; SLCC 2375	BAControl-5	990113	990434	990114
		BAControl-10	990141	990435	990142
		BACuanti	990119	990436	990118
		BACuali	990117 Qualitative material		
<i>Listeria monocytogenes</i> (CECT 5366)	ATCC 19115 ;CIP 78.38; SLCC 2375; strain Li2	BAControl-5	992562	992563	992564
		BAControl-10	992565	992566	992567
		BACuanti	992568	992569	992570
		BACuali	992571 Qualitative material		
			Part No.		

¹ The use of this strain is recommended in ISO 11133:2014

² This strain is indicated by European Pharmacopoeia to be employed in pharmaceutical processes and it is available also at concentrations of <100 ufc/0,1 mL, >100 ufc/0,1mL or 10⁵-10⁶ ufc/0,1mL.

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General Microbiology

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Listeria monocytogenes</i> (CECT 5873)	ATCC 35152; NCTC 7973; WDCM 00109	BACuali	992666 Qualitative material		
<i>Listeria monocytogenes</i>	ATCC 7644; NCTC 13372	BACControl-5	-	992626	-
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992664 Qualitative material		
<i>Listeria monocytogenes</i> sg.46 (CECT 4032)	NCTC 11994; F.646/86; WDCM 00019	BACControl-5	992668	992669	-
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992667 Qualitative material		
<i>Micrococcus luteus</i> (CECT 5863 T)	WDCM 00111; ATCC 4698; CCM 169; CECT 51; CECT 5053; CIP A270; DSM 20030; HAMB1 26; HAMB1 1399; IEGM 391; JCM 1464; LMG 4050; NBRC 3333; NCCB 78001; NCTC 2665; NCIB 9278; NRRL B-287; VKM B-1314	BACControl-5	990356	990437	990362
		BACControl-10	990357	990438	990363
		BACuanti	990364	990439	990367
		BACuali	990355 Qualitative material		
<i>Micrococcus luteus</i> (CECT 245)	ATCC 10240; BUCAV 392; CCM 732; CCUG 21988; CIP 53.160; DSM 1790; FDA 16; FIRDI 452; IFO 3242; IMET 10759; LMG 3293; NCTC 7743; PCI 1216; Stanley 130.21; USCC 1529	BACuali	992624 Qualitative material		
<i>Moraxella catarrhalis</i> (CECT 8634)	HCUV-405055	BACuali	992735 Qualitative material		
<i>Mucor racemosus</i> (CECT 20821)	WDCM 00181; ATCC 42647; CBS 906.69; CCUG 33992; CCUG 34352	BACuali	992510 Qualitative material		
<i>Proteus mirabilis</i> (CECT 5350)	NCDC 2059-70; ATCC 25933	BACuali	992670 Qualitative material		
<i>Proteus mirabilis</i> ¹ (CECT 4168)	ATCC 29906; CCRC 13991; CCUG 26767; CDC PR14; CIP 103181; LMG 3257; NCTC 11938; WDCM 00023	BACuali	992671 Qualitative material		
<i>Proteus mirabilis</i> (CECT 4101)	ATCC 14153; CCTM La 2798; CCUG 32232; CIP 104032; CNCTC Prmi 27/79; DSM 788; FDA PCI 765; IMET 11232; LMG 9077; VTT E-85229	BACuali	992741 Qualitative material		
			Part No.		

¹ The use of this strain is recommended in ISO 11133:2014

² This strain is indicated by European Pharmacopoeia to be employed in pharmaceutical processes and it is available also at concentrations of <100 ufc/0,1 mL, >100 ufc/0,1mL or 10⁵-10⁶ ufc/0,1mL.

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General Microbiology

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Pseudomonas aeruginosa</i> ^{1,2} (CECT 111)	WDCM 00026; ATCC 9027; BUCSAV 278; CCM 1961; CCRC 11633; CCTM La 3362; CCUG 22801; CIP 82.118; CNCTC Ps 37/65; DSMZ 1128; DSMZ 1385; Hugh 813; IAM 10374; IFO 13275; IMET 10905; LMG 8029; NRRL B-800; PCM 2562; RH 813;	BAControl-5	990183	990440	990185
		BAControl-10	990184	990441	990186
		BACuanti	990187	990442	990188
		BACuali	990182 Qualitative material		
<i>Pseudomonas aeruginosa</i> ¹ (CECT 110 T)	WDCM 00024; ATCC 10145; AJ 2116; BUCSAV 277; CCEB 481; CCEB 766; CCM 481; CCM 1960; CCRC 10944; CCTM La 2773; CCUG 551; CCUG 28447; CCUG 29297; CFBP 2466; CIP 100720; CNCTC Ps 153/77; DSMZ 50071; FIRDI 944; GISK 190154; HAMB I 25; IAM 1514; ICPB 2523; IFO (now NBRC) 12689; IMET 10403; IMET 12689; JCM 5962; KM 274; Kosako 85002; LMD 76.39; LMG 1242; NCFB 1369; NCPPB 1965; NCTC 10332; NRRL B-771; PCM 499; PD 971; PD 1816; RH 815; UQM 495; USCC 2030; VKM B-588; VTT E-75041	BAControl-5	990506	990509	990512
		BAControl-10	990507	990510	990513
		BACuanti	990508	990511	990514
		BACuali	990515 Qualitative material		
<i>Pseudomonas aeruginosa</i> (CECT 108)	WDCM 00025; ATCC 27853; CCM 3955; CCRC 11864; CCTM La 2766; CCUG 1423; CCUG 17619; CIP 76.110; CNCTC Ps 162/78; DSMZ 1117; GISK 190127; Hansen H50; LMD 89.161; LMD 90.9; LMG 6395; Medeiros Boston 41501; NCIMB 12469	BAControl-5	990106	990443	990107
		BAControl-10	990143	990444	990144
		BACuanti	990092	990445	990091
		BACuali	990089 Qualitative material		
<i>Pseudomonas aeruginosa</i> (CECT 4080)	CIP A22; LMG 10639; NCIMB 13056; WDCM 00027	BACuali	992637 Qualitative material		
<i>Pseudomonas fluorescens</i> (CECT 378 T)	WDCM 00115; ATCC 13525; CCEB 488; CCEB 546; CCEB 762; CCM 2115; CCRC 11028; CCTM La 3364; CCUG 1253; CFBP 2102; CIP 69.13; CNCTC Ps 154/77; DSM 50090; HAMB I 27; HNCMB 173001; Hugh 818; IAM 12022; ICPB 3200; IFO 14160; IMET 10619; IFO (now NBRC) 14160; JCM 5963; Kado 11D42; LMG 1794; NCFB 1524; NCPPB 1964; NCTC 10038; Rhodes 28/5; Stanier 193; VKM 894; VTT E-93443	BAControl-5	990378	990446	990379
		BAControl-10	990472	990447	990475
		BACuanti	990473	990448	990476
		BACuali	990474 Qualitative material		
<i>Raoultella planticola</i> (CECT 843)	ATCC 33531; CCRC 13986; CCUG 15718; CDC 4245-72; CIP 100751; CNCTC KI 2/83; CUETM 83-94; DSM 3069; IFO 14939; JCM 7251; Seider V-236	BACuali	992736 Qualitative material		
<i>Raoultella terrigena</i> (CECT 4519)	ATCC 33257; CCM 3568; CCRC 14805; CIP 80.7; CNCTC KI 1/83; CUETM 77-176; DSM 2687; Gavini L84; IFO 14941; JCM 1687; Kosako 82083; Leclerc 77-176; LMG 3222; NCIMB 12053; Sakazaki 496	BACuali	992737 Qualitative material		
			Part No.		

¹ The use of this strain is recommended in ISO 11133:2014

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General Microbiology

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Rhodococcus hoagii (equi)</i> (CECT 555)	AJ 1402; ATCC 6939; ATCC 25729; CCM 3429; CCRC 12859; CCTM La 3501; CCUG 892; CCUG 20987; CCUG 23606; CIP 54.72; DSM 43349; Goodfellow R 71; Gordon 1621; IAM 12426; IFO 14956; IMET 7467; JCM 1311; LMG18452; Magnusson strain Foal; NBRC 101255; NCIMB 12828; NCTC 1621; NRRL B-16538; PCM 559; Suzuki CNF 002; WDCM 00028	BACuali	992672 Qualitative material		
<i>Saccharomyces cerevisiae</i> (CECT 1317)	ATCC 24904; ATCC 9080; AJ 4033; B 24819; CBS 2354; CCRC 20855; CCTM La 2891; CCY 48-76; CNCTC 57/87; DBVPG 6248; DSMZ 70424; Hillman Hospital 4228; IAM 4206; IFO 0565; IHEM 3963; IP 2046.92; JCM 2223; NCYC 74; NRRL Y-1089; VKPM T 830; VTT A-66065; Windisch Sa-0607	BACControl-5	992611	992612	992613
		BACControl-10	992614	992615	992616
		BACuanti	992617	992618	992619
		BACuali	992525 Qualitative material		
<i>Saccharomyces cerevisiae</i> (CECT 1383)	WDCM 00058; ATCC 9763; B 42428; CBS 2978; CBS 5900; CCRC 20822; CCTM La 2895; CCY 21-4-48; CNCTC 51/65; DSMZ 1333; IAW 39; IHEM 3961; LCP 86.3379; LOCK 9; MUCL 30115; NCPF 3191; NCTC 7239; NCTC 10716; NCYC 87; NRRL Y-567; PCI M-50; UMIP 1432.83; VTT C-94203	BACControl-5	992532	992533	992534
		BACControl-10	992535	992536	992537
		BACuanti	992553	992554	992555
		BACuali	992521 Qualitative material		
<i>Salmonella enterica subsp. enterica serovar Abony</i> (CECT 545)	WDCM 00029; NCTC 6017; CCTM La 2697; CCUG 21354; CIP 80.39; CNCTC SK 103; DSM 4224; PCM 2564; 74	BACControl-5	990201	990452	990203
		BACControl-10	990202	990453	990204
		BACuanti	990205	990454	990206
		BACuali	990200 Qualitative material		
<i>Salmonella enterica subsp. enterica serovar Enteritidis¹</i> (CECT 4300)	ATCC 13076; ATCC 25928; CCRC 10744; CDC K-1891; CNCTC SK 64; DSM 9898; DSM 17420; Kauffmann 1891; LMG 10395; WDCM 00030	BACControl-5	992633	992634	992627
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992673 Qualitative material		
<i>Salmonella enterica subsp. enterica serovar Typhimurium¹</i> (CECT 4594)	WDCM 00031; ATCC 14028; CCRC 10747; CDC 6516-60; CIP 104115; NCIMB 13284	BACControl-5	990194	990455	990196
		BACControl-10	990195	990456	990197
		BACuanti	990198	990457	990199
		BACuali	990193 Qualitative material		
<i>Salmonella enterica subsp. enterica serovar Thyphi</i> (CECT 409 T)	ATCC 19430; CCRC 12948; CIP 55.35; CNCTC Ta 19/45; CNCTC Ta 27/56; Felix Ty2; PCM 1901	BACControl-5	990111	990449	990112
		BACControl-10	990145	990450	990146
		BACuanti	990110	990451	990109
		BACuali	990090 Qualitative material		
<i>Shigella flexneri</i> (CECT 4804)	ATCC 12022; CCRC 10772; CDC strain 3591-52; CIP 104222; NCTC 12698; WDCM 00126	BACuali	992674 Qualitative material		
			Part No.		

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General Microbiology

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			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Shigella sonnei</i> (CECT 4631)	ATCC 25931; CCUG 32351; CDC 1120-66; CIP 104223	BAControl-5	992676	992677	-
		BAControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992675 Qualitative material		
<i>Staphylococcus aureus</i> ^{1, 2} (CECT 239)	WDCM 00032; ATCC 6538; CCRC 12154; CCTM La 2103; CCUG 10778; CIP 4.83; CNCTC Mau 29/58; DSMZ 799; FDA 209; FIRDI 941; HMGB B865; IAW 34; IFO 13276; IMET 10761; LMD 46.64; LMG 8064; NCTC 10788; VTT E-70045	BAControl-5	990176	990458	990178
		BAControl-10	990177	990459	990179
		BACuanti	990180	990460	990181
		BACuali	990175 Qualitative material		
<i>Staphylococcus aureus</i> ¹ (CECT 435)	WDCM 00034; ATCC 25923; CCM 3953; CCRC 10781; CCTM La 2816; CCTM La 3561; CCUG 7738; CCUG 17621; CIP 76.25; CNCTC Mau 80/73; DSMZ 1104; FDA Seattle 1945; GISK 201189; IFO 14462; JCM 2413; LMD 90.23; LMG 8224; NCIMB 12702; PCM 2054	BAControl-5	990104	990461	990105
		BAControl-10	990147	990462	990148
		BACuanti	990087	990463	990088
		BACuali	990086 Qualitative material		
<i>Staphylococcus aureus</i> (CECT 5192)	ATCC 27664; Bergdoll FRI-326; DSM 18589	BACuali	992763 Qualitative material		
<i>Staphylococcus aureus</i> (CECT 5190)	ATCC 43300; CCM 4750; DSM 13661; Thornsberry F-182; WDCM 00211	BACuali	992762 Qualitative material		
<i>Staphylococcus aureus</i> (CECT 9951)	ATCC 33591; Schaefer 328	BACuali	992682 Qualitative material		
<i>Staphylococcus aureus</i> (CECT 794)	ATCC 29213; CCM 4223; CCRC 11863; CCUG 15915; CIP 103429; CNCTC Mau 127/90; DSM 2569; Gerlach strain Wichita; IFO 15035; JCM 2874; LMD 90.24; LMG 10147; NIHJ 85047; WDCM 00131	BACuali	992681 Qualitative material		
<i>Staphylococcus aureus</i> (NCTC 10804)	502 A; ATCC 27217	BACuali	992680 Qualitative material		
<i>Staphylococcus epidermidis</i> ¹ (CECT 232 T)	WDCM 00132; ATCC14990; AMIF strain Fussel; BTCC 2124; CCM 2124; CCRC 10785; CCTM La 2817; CCUG 18000; CIP 81.55; DSM 20044; GISK 202001; IAM 12013; JCM 2414; LMG 10474; NCAIM B.01066; NCIMB 12721; NCTC 11047; PCM 2118; Hugh RH 2466	BAControl-5	990328	990464	990334
		BAControl-10	990329	990465	990335
		BACuanti	990332	990466	990338
		BACuali	990341 Qualitative material		
Part No.					

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General Microbiology

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			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Staphylococcus epidermidis</i> (CECT 231)	ATCC 12228; CCM 4418; CCRC 11030; CCTM La 1724; CIP 68.21; CNCTC M 12/63; DSM 1798; FDA PCI 1200; IAM 12012; IFO 12993; IW 1533; LMG 10273; WHO 12; WDCM 00036	BACuali	992679 Qualitative material		
<i>Staphylococcus saprophyticus</i> (CECT 235 T)	WDCM 00159; ATCC 15305; ATCC 19701; CCM 883; CCRC 10786; CCTM La 2818; CCUG 3706; CIP 76.125; Cowan S-41; GISK 203001; JCM 2427; LMD 73.11; NCAIM B.01067; NCFB 948; NCIMB 8711; NCTC 7292; PCM 2109	BACControl-5	992526	992527	992528
		BACControl-10	992529	992530	992531
		BACuanti	992550	992551	992552
		BACuali	992520 Qualitative material		
<i>Streptococcus agalactiae</i> (CECT 183)	ATCC 13813; NCTC 8181; CCRC 10787; CCUG 4208; CIP 103227; DSM 2134; JCM 5671; NCFB 1348; Stableforth G19	BACuali	992765 Qualitative material		
<i>Streptococcus dysgalactiae</i> (CECT 758)	N35; NCTC 4335	BACuali	992748 Qualitative material		
<i>Streptococcus oralis</i> (CECT 907)	ATCC 35037; NCTC 11427; Bridge & Sneath 182; Carlsson LVG/1; CCUG 13229; CCUG 24891; CCRC 14749; CIP 102922; DSM 20627; LMG 14532; NCFB 2680	BACuali	992738 Qualitative material		
<i>Streptococcus pneumoniae</i> (CECT 8737)	ATCC 49619; NCTC 12977; CIP 104340	BACControl-5	-	-	992640
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	-		
<i>Streptococcus pyogenes</i> (CECT 191)	CIP 104226; ATCC 19615; NCIMB 13285; Wittler strain Bruno	BACControl-5	992760	-	992639
		BACControl-10	992761	-	992774
		BACuanti	-	-	-
		BACuali	-		
<i>Streptococcus salivarius</i> (CECT 805)	ATCC 7073; CCUG 11878; CIP 102503; DSM 20560; GIFU 8326; IID 5223; IMET 3163; JCM 5707; LMG 11489; NCFB 1779; NCTC 8618; New York State Dept. Hlth. 275	BACControl-5	-	-	992638
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	-		
<i>Streptococcus salivarius</i> spp. <i>thermophilus</i> (CECT 986)	ATCC 19258; CCRC 13869; CCTM La 3104; CIP 102303; CNCTC Str 28/89; DSM 20617; LMG 6896; NCFB 573; NCTC 12958; strain B of R; USCC 2083; WDCM 0013	BACuali	992683 Qualitative material		
<i>Streptococcus uberis</i> (CECT 994)	ATCC 19436; CCRC 12579; CCUG 17930; CIP 103219; CNCTC Str 10/63; JCM 5709; LMG 9465; NCFB 2038; NCTC 3858	BACuali	992747 Qualitative material		
Part No.					

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General Microbiology

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			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Walleimia mellicola</i> (CECT 20820)	WDCM 00182; ATCC 42694; DSM 101886; FRR 1471	BACControl-5	-	-	992635
		BACControl-10	-	-	992636
		BACuanti	-	-	-
		BACuali	992511 Qualitative material		
<i>Yersenia enterocolitica</i> (CECT 9144)	DSM 13030; Y11; WDCM 00216	BACControl-5	992685	992686	-
		BACControl-10	-	-	-
		BACuanti	-	-	-
		BACuali	992684 Qualitative material		
<i>Yersenia enterocolitica</i> (CECT 8263)	Billups 1803-68; NCTC 10598; CIP 111053; WDCM 00160	BACuali	992687 Qualitative material		
<i>Yersenia aldovae</i> (CECT 4314)	Aldova 19955; ATCC 35236; CDC 669-83; CIP 103162; CNCTC Y 67/90; Huntley-Carter CNY 6005; IP 6005; JCM 5892	BACuali	992739 Qualitative material		
Part No.					

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BAControl Selection WATER

Water Analysis Kit (low concentration)

BAControl-10 with two tablets of each species at a concentration of <100 cfu/tablet.

Citrobacter freundii traceable CECT 4626
Clostridium perfringens traceable CECT 376 T
Enterococcus faecium traceable CECT 410 T
Escherichia coli traceable CECT 434 (4 tablets)

Part No. 990283

Water Analysis Kit (high concentration)

BAControl-10 with two tablets of each species at a concentration of >1,000 cfu/tablet.

Citrobacter freundii traceable CECT 4626
Clostridium perfringens traceable CECT 376 T
Enterococcus faecium traceable CECT 410 T
Escherichia coli traceable CECT 434 (4 tablets)

Part No. 990327

Please, you can find more information about these strains in this catalogue

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General Microbiology

Strains recommended by ISO 11133: 2014-Appendix 2-2020: PERFORMANCE TESTING OF CONFIRMATION MEDIA AND REAGENTS

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Shigella sonnei</i> (CECT 4887)	ATCC 29930; DSM 5570; NCTC 12984; strain I virulent; WDCM 00127	BACuali		992780	
<i>Shigella flexneri</i> (CECT 8175)	ATCC 29903; CCUG 56439; CIP 82.48; DSM 4782; WDCM 00125	BACuali		992781	
<i>Lactobacillus delbrueckii subsp. bulgaricus</i> (CECT 4005)	ATCC 11842; CCRC 10696; CCUG 21450; CIP 101027; DSM 20081; FIRDI 696; Hansen Lb14; IAM 12472; IFO 13953; IMET 10708; IPCR S1-3; JCM 1002; LMD 46.76; LMG 6901; NCIMB 11778; WDCM 00102	BACuali		992782	
<i>Lactobacillus brevis</i> (CECT 4121)	ATCC 14869; CCM 3805; CCRC 12187; CCUG 30670; CIP 102806; DSM 20054; Hausen Bb14; IMET 10711; JCM 1059; LMG 6906; LMG 7944; NCFB 1749; NZCC 20070; VTT E-91458; WDCM 00099	BACuali		992783	
<i>Campylobacter coli</i> (CECT 7571)	ATCC 43478; CCM 7227; Penner 76-GA2; PC262; WDCM 00004	BACuali		992784	
<i>Hafnia alvei</i> (CECT 158)	ATCC 13337; NCTC 8105; CCUG 15720; CDC 434-68; CIP 57.31; CNCTC Ha 3/68; DSM 30163; GISK 245530; JCM 1666; NCIMB 11999; PCM 537; Stuart 32011; WDCM 00095	BACuali		992785	
<i>Cronobacter muytjensii</i> (CECT 9143)	ATCC 51329; LRA 023 07 83	BACuali		992786	
<i>Lactobacillus casei</i> (CECT 475)	ATCC 393; CCRC 10697; CCTM La 3034; CCUG 21451; FIRDI 697; HAMB1 85; Hucker O3; IAM 12473; IID 892; JCM 1134; LMG 6904; LMG 9190; NCFB 161; NCIMB 11970; Orla-Jensen 7; Orland L-323; Tittsler 303; VTT E-85225; WDCM 00100	BACuali		992787	
<i>Lactobacillus plantarum</i> (CECT 748)	ATCC 14917; CCRC 10069; CCUG 30503; CIP 103151; HAMB1 72; Lp39; IAM 12477; JCM 1149; LMG 6907; LMG 7945; NBRC 15891; NCFB 1752; NCIMB 11974; NRR1 B-4496; Orla-Jensen 39; VTT E-79098; WDCM 00104	BACuali		992788	
<i>Bacillus subtilis</i> (CECT 8266)	NCTC 5398; WDCM 00070	BACuali		992789	
Part No.					

BACredi Accredited Reference Material

ielab is an Accredited Reference Material Producer, following ISO 17034 standard, for the BACredi materials specified in the table below. Due to its characteristics as accredited reference materials and all technical requirements that its production entails, we believe this product will be very useful for the quality controls in many laboratories.

The concentration is calculated dissolving one tablet in 20mL of sterile water, following the User Guide that is provided with the product.

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Citrobacter freundii</i> (CECT 4626)	WDCM 00077; NCTC 6272; NCIMB 8645; strain B	BACredi BC-5	990549	990552	990555
		BACredi BC-10	990550	990553	990556
		BACredi BQ	990551	990554	990557
		BACredi BL	990558 Qualitative material		
<i>Clostridium perfringens</i> (CECT 376 T)	WDCM 00007; ATCC 13124; ATCC 19408; CCM 5744; CCRC 10913; CCTM La 2957; CCUG 1795; CIP 103409; CN 1491; CNCTC CI 68/83; DSMZ 756; FIRDI 913; JCM 1290; LMD 89.165; LMG 11264; NCAIM B.01417; NCIMB 6125; NCTC 6125; Schmidt S 107	BACredi BC-5	990569	990572	990575
		BACredi BC-10	990570	990573	990576
		BACredi BQ	990571	990574	990577
		BACredi BL	990578 Qualitative material		
<i>Enterococcus faecium</i> (CECT 410 T)	WDCM 00010; ATCC 19434; CCRC 10067; CCTM La 2367; CCUG 542; CIP 103014; DSMZ 20477; GIFU 8355; JCM 5804; LMG 8149; LMG 11423; NCFB 942; NCIMB 11508; NRIC 1145; strain OJ; VTT E-93204	BACredi BC-5	990559	990562	990565
		BACredi BC-10	990560	990563	990566
		BACredi BQ	990561	990564	990567
		BACredi BL	990568 Qualitative material		
<i>Escherichia coli</i> (CECT 434)	WDCM 00013; ATCC 25922; CCM 3954; CCRC 14902; CCTM La 2184; CCUG 7736; CCUG 17620; CCUG 21456; CIP 76.24; CNCTC Ec 327/73; DSM 1103; FDA Seattle 1946; GISK 240533; HER 1176; IFO 15034; JCM 5491; LMG 8223; NCIMB 12210; PCM 2057	BACredi BC-5	990539	990542	990545
		BACredi BC-10	990540	990543	990546
		BACredi BQ	990541	990544	990547
		BACredi BL	990548 Qualitative material		
<i>Legionella pneumophila sg.1</i> Recommended in assays following the current Norm ISO 11731 (cellulose filters). (CECT 7109 T)	WDCM 00107; ATCC 33152; Philadelphia 1; CCUG 9568; DSM 7513; JCM 7571; NCTC 11192;	BACredi BC-5	990579	990582	990585
		BACredi BC-10	990580	990583	990586
		BACredi BQ	990581	990584	990587
		BACredi BL	990588 Qualitative material		
			Part No.		

BACredi Accredited Reference Material

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/tablet)		
			LOW <100	INTERMEDIATE 100-1.000	HIGH >1.000
<i>Leg.pneumophila</i> polycarbonate <i>sg. 1</i> Recommended in assays following the current Norm ISO 11731 (polycarbonate/ nylon filters). (CECT 7109 T)	WDCM 00107; ATCC 33152; Philadelphia 1; CCUG 9568; DSM 7513; JCM 7571; NCTC 11192;	BACredi BC-5	-	-	990589
		BACredi BC-10	-	-	990590
		BACredi BQ	-	-	990591
		BACredi BL	-	-	-
			Part No.		

(1)

BACredi BC-5: non certified quantitative reference material.

BACredi BC-10: non certified quantitative reference material.

BACredi BQ: certified quantitative reference material.

BACredi BL: non certified qualitative reference material.

ielab has signed a Material Transfer Agreement (MTA) with the Spanish Type Culture Collection (Colección Española de Cultivos Tipo, CECT ®) under the modality 2*, by virtue of which its accredited products are traceable to CECT ® strains, as an internationally recognized Type Culture Collection.



*Modality 2: Transfers where a subsequent distribution is authorized by the recipient or buyer of the MGR (Microbial Genetic Resource), as long as the recipient user of the MGR has a demonstrated capacity to maintain the registry of the individuals or institutions to which the MGRs are transferred.

Environmental isolates

We offer a wide range of isolates, identified strains and isolated from environmental samples.

They are presented in a safe, user-friendly and easy to store container, to be used for the validation of different essay methods.

Expiry: 12 months.

Microorganism	Part No.
<i>Escherichia coli</i>	990275
<i>Enterococcus faecium</i>	990276
<i>Salmonella</i> spp.	990277
<i>Legionella pneumophila</i>	990278
<i>Legionella</i> spp.	990279
<i>Clostridium perfringens</i>	990280
<i>Staphylococcus aureus</i>	990281
Other species	990282

Minimum order: 5 units. Please request us about other available species, either Type Culture Collection strains or also native strains exclusive of a working place which have to be isolated and produced as quantitative or qualitative reference material to be used in quality controls of the production processes that occur in that place.

Please contact our Sales Department at:

comercial@ielab.es.

Native isolates

ielab offers the possibility of having a service for manufacturing reference materials from isolated strains obtained in own customer's facilities for several sectors such as the pharmaceutical sector, the food and beverage sector, the parapharmaceutical sector, etc.

For more information about it, you can contact us at the e-mail: comercial@ielab.es or by phone + 34 966 10 55 01.

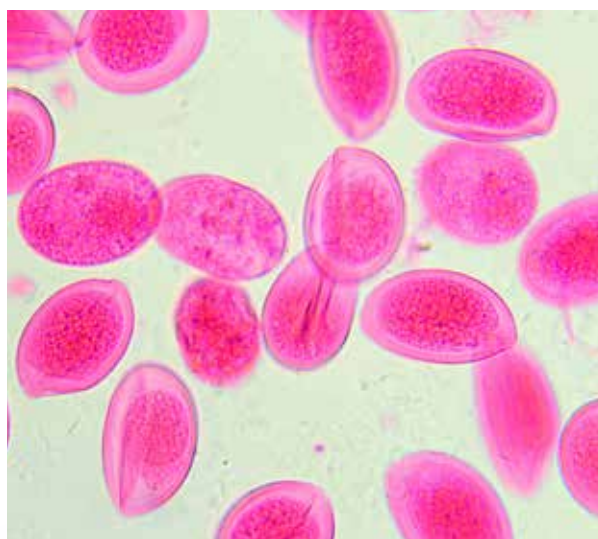
Helminths

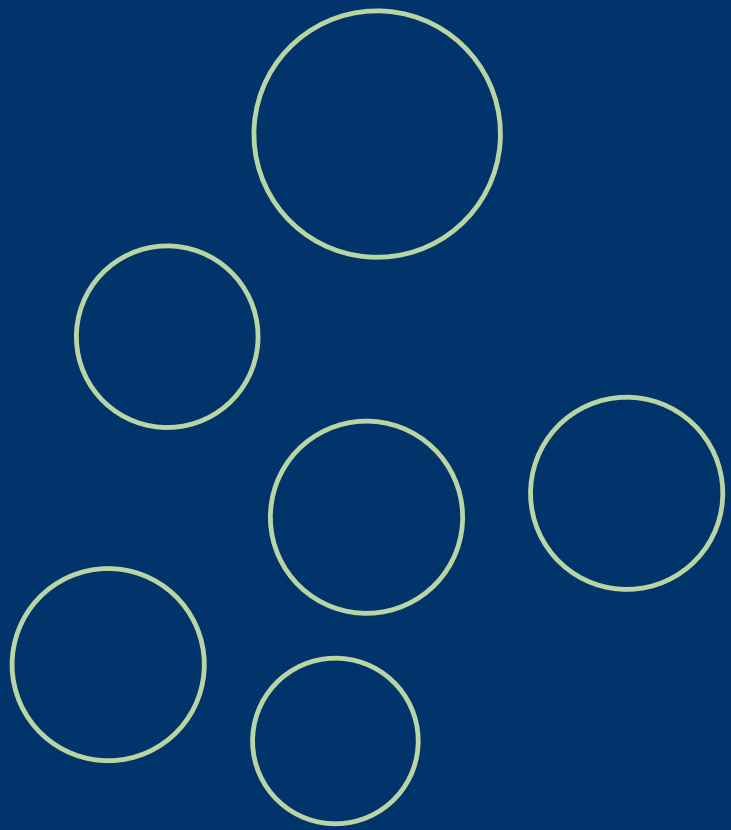
This quantitative material is provided in vials containing 150 eggs/vial. It has a shelf life of 12 months from the date of preparation.

Microorganism	Part No.
<i>Fasciola hepatica</i>	990149
<i>Fasciola gigantica</i>	990150
<i>Ascaris lumbricoides</i>	990151
<i>Taenia solium</i>	990152
<i>Trichuris</i> sp.	990153
<i>Schistosoma</i> sp.	990154
<i>Diphyllobothrium</i> sp.	990155

Additional material

Name	Part No.
BACwater: box with 10 vials containing sterile water	990156
BACglass: box with 10 sterile vials	990157





ielab Pharma

MICROBIOLOGICAL REFERENCE MATERIALS

Pharmacopoeia



EXPERIENCE

ielab is a company belonging to SUEZ group that has a wide experience providing services and products related to the application of quality in laboratories. Our main products are **Reference Materials**, including **Accredited Reference Materials** according to ISO 17034 (BACredi), and **Proficiency Test Schemes accredited** according to ISO 17043.

PHARMACOPOEIA

ielab offers quantitative **Microbiological Reference Materials**, presented in tablet format, for the different strains indicated in the **European Pharmacopoeia**:

- *Escherichia coli* ATCC 8739
- *Clostridium sporogenes* ATCC 11437 y ATCC 19404
- *Pseudomonas aeruginosa* ATCC 9027
- *Staphylococcus aureus* ATCC 6538
- *Bacillus subtilis* ATCC 6633
- *Bacillus cereus* ATCC 11778
- *Candida albicans* ATCC 10231
- *Aspergillus brasiliensis* ATCC 16404
- *Salmonella* spp. serovar *Abony* NCTC 6017
- *Salmonella* spp. serovar *Typhimurium* ATCC 14028

This materials are available in three **different concentration ranges**:

- ❖ Low: <100 cfu/0.1mL
- ❖ High: >100 cfu/0.1mL
- ❖ Extra high: 10^7 - 10^8 cfu/tablet
(10^5 - 10^6 cfu/0.1mL)

APPLICATIONS

- Growth promotion
- Bioburden test
- Nutritional adequacy
- Challenge test
- Antimicrobial effectiveness
- Preservative efficacy

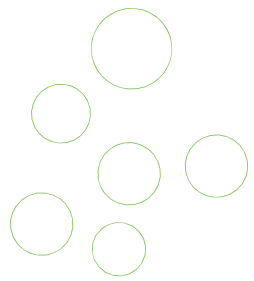
"IN HOUSE" STRAINS

ielab offers to the pharmaceutical, para-pharmaceuticals and cosmetic companies the service for manufacturing **Reference Materials** from their own strains or isolated strains obtained in their facilities. **ielab** offers also an identification service by sequencing for the "in house" isolated strains.

BAControl



BACuanti



www.ielab.es

SPECIAL SERVICES

BAControl SELECTION

Kit Challenge Test (5-10 units)

Concentration: 10^5 - 10^6 cfu/0.1mL

- *Escherichia coli* ATCC 8739
- *Staphylococcus aureus* ATCC 6538
- *Pseudomonas aeruginosa* ATCC 9027
- *Candida albicans* ATCC 10231
- *Aspergillus brasiliensis* ATCC 16404

Kit Growth Promotion (5-10 units)

Concentration: <100 cfu/0.1mL

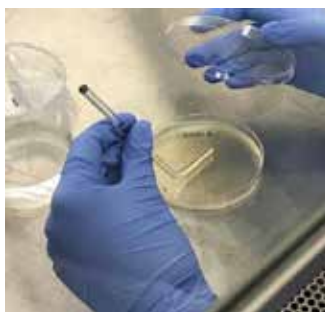
- *Clostridium sporogenes* ATCC 11437
- *Pseudomonas aeruginosa* ATCC 9027
- *Bacillus subtilis* ATCC 6633
- *Candida albicans* ATCC 10231
- *Aspergillus brasiliensis* ATCC 16404



DOUBLE QUANTIFICATION

ielab offers **References Materials** quantified (<100 cfu) by means of 0.1 mL spread plate methods, both in general culture medium and in the specific culture medium indicated by the **European Pharmacopoeia in section 2.6.13**, for each of the following microorganisms:

- *Escherichia coli* ATCC 8739
- *Clostridium sporogenes* ATCC 11437 y ATCC 19404
- *Pseudomonas aeruginosa* ATCC 9027
- *Staphylococcus aureus* ATCC 6538
- *Salmonella* spp. serovar *Abony* NCTC 6017
- *Salmonella* spp. serovar *Typhimurium* ATCC 14028
- *Aspergillus brasiliensis* ATCC 16404
- *Bacillus subtilis* ATCC 6633
- *Candida albicans* ATCC 10231



OTHER SERVICES

In **ielab** we are at the service of our clients and their needs, do not hesitate to contact us for any project or activity in which we can be useful to you, beyond our catalogue products such as:

- Organization of inter-laboratory tests
- Internal quality controls
- Hazard Analysis and Critical Control Points (HACCP)
- Validation of cleaning or sterilization processes

If you need more information please, do not hesitate to contact us at the e-mail address comercial@ielab.es, we will be glad to assist you.

ielab
T +34 966 10 55 01
C/ Dracma 7 - P. I. Las Atalayas
03114 Alicante (España)

www.ielab.es

MICROBIOLOGICAL REFERENCE MATERIALS

Burkholderia cepacia complex (Bcc)



EXPERIENCE

ielab is a company belonging to SUEZ group that has a wide experience providing services and products related to the application of quality in laboratories. Our main products are **Reference Materials**, including **Accredited Reference Materials** according to ISO 17034 (BACredi), and **Proficiency Test Schemes accredited** according to ISO 17043.

Burkholderia cepacia

Contamination by microorganisms of the *Burkholderia cepacia* (**Bcc**) complex has been responsible in the last years for the recall of most non-sterile pharmaceutical products.

The **complex Bcc** include a group antibiotics and antimicrobial agents resistant bacteria that are capable of causing opportunistic infections in immunocompromised people.

In December 2019, the USP published the new chapter **USP<60>** “**Microbiological examination of non-sterile products-Test for *Burkholderia cepacia* complex**” where the test methods to determine the absence of Bcc in water, raw materials and non-sterile pharmaceutical products are described.

REFERENCE MATERIALS

ielab offers quantitative **Microbiological Reference Materials**, presented in tablet format, for the different strains indicated in the **USP<60>**:

- *Burkholderia cepacia* ATCC 25416
- *Burkholderia cenocepacia* ATCC BAA-245
- *Burkholderia multivorans* ATCC BAA-247
- *Pseudomonas aeruginosa* ATCC 9027

The USP<60> recommends carry out both Growth Promotion (GP) and Suitability test, thus these **Reference Materials** are presented in two different **concentration ranges**:

- ❖ Low range: <100 cfu/0.1mL
- ❖ Extra high range: 10⁷-10⁸ cfu/tablet (10⁵-10⁶ cfu/0.1mL)

“IN HOUSE” STRAINS

If any company detects any positive of *Burkholderia* in its facilities or products, should isolate, identify and conserve the strain to include it in future tests.

Thus, **ielab** offers to the pharmaceutical, para-pharmaceuticals and cosmetic companies the service for manufacturing **Reference Materials** from their own strains or isolated strains obtained in their facilities. **ielab** offers also an identification service by sequencing for the “*in house*” isolated strains.



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ANALYSIS REPORT



BAControl-10

(reference material, RM)



Material trazable a cepas CECT

Producer

ielab Calidad, S.L.
C/ Dracma, 7
Pol. Ind. Las Atalayas
03114 Alicante (Spain)
T +34 966 10 55 01

Description

Part No.: 990222

Microorganism: *Aspergillus brasiliensis* V585 traceable to CECT 2574 (corresponds to ATCC 16404; WDCM 00053), with one passage from the Culture Collection reference stock strain.

Batch No.: PAB16110 A

Manufacturing date: 16/Nov/2020

Expiry date: 09/Dec/2021

Format: freeze-dried tablet.

Authenticity proof of the used Culture Collection strain

Microscopic observation

Safety information

Risk group 2

Storage conditions

Keep at $-20 \pm 5^{\circ}\text{C}$

Intended use

Routine quality controls in terms of precision (control of process, control charts and culture media quality controls).

Reconstitution conditions

(indicated in the User Guide)

Solvent: Sterile distilled water

Volume: 20 mL

Reconstitution time: 10 minutes

Producer analysis conditions

Laboratory: one laboratory following ISO 17025 requirements

Dilutions: not apply

Analyzed volume: 0.1 mL

Technique: Spread plate

Incubation temperature: $22 \pm 2^{\circ}\text{C}$

Incubation period: 7 days

Culture medium: TSA (Tryptona soya agar)

Filtration membranes: not apply

Quality controls in the described analysis conditions

Contamination: Not detected

Homogeneity: Homogeneous ($u_H = 0.020 \log$)

Stability: Stable ($u_E = 0.043 \log$)

Results obtained in the reconstitution volume

Percentage of analyzed batch: 15%

Number of tests: 56

Obtained value per 0.1 mL: 5.94×10^8 cfu

95% Confidence interval: $2.49 \times 10^8 - 14.1 \times 10^8$ cfu

Alicante, December 09th 2020.

Raquel Múrtula Corbí

Technical manager of microbiology area

Version 0

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Pharmacopoeia

Applications: Growth Promotion test, Nutritional adequacy test, Microbial limits testing, microbial enumeration testing...

The concentration is obtained after dissolving one tablet in 20mL of sterile water, following the User Guide that is provided with the product.

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/0,1 mL)		
			LOW <100	HIGH >100	EXTRA-HIGH (10 ⁵ -10 ⁶ ufc)
<i>Aspergillus brasiliensis-niger</i> (CECT 2574)	WDCM 00053; ATCC 16404; B 39906; B 42936; CABIM 149007; CBS 733.88; CCTM La 2212; DSMZ 1387; DSMZ 1988; FRR 6034; IFO 9455; IHEM 2311; IHEM 3766; IHEM 3794; IMI 149007; MUCL 29039; NCPF 2275; Ringel WLRI 034(120); UMIP 1431.8	BACControl-5	990221	990263	990368
		BACControl-10	990222	990264	990369
		BACuanti	990223	990265	-
		BACuali	990167 Qualitative material		
<i>Bacillus cereus</i> (CECT 193)	WDCM 00001; ATCC 9634; ATCC 11778; BTCC 924; BUCSAV 424; CCM 869; CCRC 10446; CCTM La 1138; CCUG 7415; CCUG 10781; CFBP 488; CFBP 1964; CIP 64.52; CNCTC Bc 7/69; DSMZ 345; DSMZ 4490; FDA PCI 213; HNCMB 100003; IFO 3836; IL 1; IMET 10884; LMD 61.21; LMG 8221; NCFB 720; NCIMB 8012; NCIMB 9231; NCTC 10320; PCI 213; PCM 1948; PCM 2019; Prunier 104-4; Waksman strain O	BACControl-5	990318	990319	-
		BACControl-10	990310	990320	-
		BACuanti	990324	990325	-
		BACuali	990315 Qualitative material		
<i>Bacillus subtilis</i> (CECT 356)	WDCM 00003; ATCC 6633; BTCC 7241; BUCSAV 425; CCM 1999; CCRC 10447; CCTM La 2114; CCUG 10779; CFBP 1963; CIP 52.62; CNCTC Bs 8/58; DSMZ 347; GISK 010011; Hankey B14; HMGB B100; HNCMB 100007; IAM 1069; IAW 15; IFO 3134; IFO 13720; IL 13; IMET 10880; JCM 2499; LMD 89.157; LMD 47.15; LMG 8197; NCAIM B.01268; NCFB 1733; NCIMB 8566; NCTC 10400; NRRL NRS-231; NRS 231 PCM 219; PCM 1949; PCM 2021; PZH 729; VKM 720; VTT E-85231; WHO 9	BACControl-5	990239	990254	990384
		BACControl-10	990240	990255	990385
		BACuanti	990241	990256	-
		BACuali	990207 Qualitative material		
<i>Burkholderia cenocepacia</i> (CECT 9952)	ATCC BAA-245; CCM 4899; CCUG 48434; NCTC 13227	BACControl-5	992721	-	992751
		BACControl-10	992722	-	992752
		BACuanti	-	-	-
		BACuali	-		
<i>Burkholderia cepacia</i> (CECT 4137)	ATCC 25416; NCTC 10743; Ballard 717; Burkholder 717; CCEB 669; CCRC 10735; CCRC 13208; CCUG 12691; CCUG 13226; CFBP 2227; CIP 80.24; CNCTC Ps 156/77; DSM 7288; FIRDI 735; ICMP 5796; ICPB PC25; IFO 14074; JCM 5964; Kosako 85005; LMG 1222; NCPPB 2993; Palleroni 717; PDDCC 5796; RH 2796; Starr KPB PC25; VTT E-94512	BACControl-5	992719	-	992749
		BACControl-10	992720	-	992750
		BACuanti	-	-	-
		BACuali	-		
Part No.					

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Pharmacopoeia

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/0,1 mL)		
			LOW <100	HIGH >100	EXTRA-HIGH (10 ⁵ -10 ⁶ ufc)
<i>Burkholderia multivorans</i> (CECT 9954)	CIP 105495; LMG 13010; NCTC 13007	BAControl-5	992723	-	992753
		BAControl-10	992724	-	992754
		BACuanti	-	-	-
		BACuali	-		
<i>Candida albicans</i> (CECT 1394)	WDCM 00054; ATCC 10231; B 42904; CBS 6431; CCTM La 2785; CCY 29-3-106; DSMZ 1386; Emmons 3149; HAMB1 484; IFO 1594; IHEM 4263; JCM 2085; MUCL 30114; NCPF 3179; NCYC 1363; NIH 3147; UMIP 48.72; VTT C-85161	BAControl-5	990242	990257	990372
		BAControl-10	990243	990258	990373
		BACuanti	990244	990259	-
		BACuali	990166 Qualitative material		
<i>Clostridium sporogenes</i> (CECT 797)	ATCC 11437; CCRC 13856; CCTM La 3546; CCUG 31316; CIP 100651; IFO 14293; McClung 2006; NCAIM B.01416; NCIMB 12343	BAControl-5	990245	990260	-
		BAControl-10	990246	990261	-
		BACuanti	990247	990262	-
		BACuali	990214 Qualitative material		
<i>Clostridium sporogenes</i> (CECT 485)	WDCM 00008; ATCC 19404; CCM 4409; CCRC 11258; CCTM La 2951; CCUG 7489; CCUG 18371; CIP 79.3; CNCTC CI 66/79; DSMZ 1664; LMD 85.28; LMG 10143; NCFB 1710; NCIMB 532; Robertson SR5	BAControl-5	990287	990289	-
		BAControl-10	990288	990290	-
		BACuanti	990294	990295	-
		BACuali	990284 Qualitative material		
<i>Enterococcus hirae</i> (CECT 4081)	ATCC 10541; CCRC 11547; CCUG 32258; CECT 214; CIP 58.55; CNCTC Str 6/58; DSM 3320; FDA M19; IAW 143; LMG 10274; NCIMB 8192; PCI 1341; WDCM 00011	BAControl-5	-	-	990662
		BAControl-10	-	-	990492
		BACuanti	-	-	-
		BACuali	-		
<i>Escherichia coli</i> (CECT 516)	WDCM 00012; ATCC 8739; CCRC 11634; CCTM La 2194; CCUG 10979; CIP 53.126; DSMZ 1576; Crooks; IFO 3972; IMET 11121; LMG 8063; NCFB 904; PCM 2561; VTT E-76039	BAControl-5	990224	990266	990370
		BAControl-10	990225	990267	990371
		BACuanti	990226	990268	-
		BACuali	990168 Qualitative material		
<i>Micrococcus luteus</i> (CECT 5863 T)	WDCM 00111; ATCC 4698; CCM 169; CECT 51; CECT 5053; CIP A270; DSM 20030; HAMB1 26; HAMB1 1399; IEGM 391; JCM 1464; LMG 4050; NBRC 3333; NCCB 78001; NCTC 2665; NCIB 9278; NRRL B-287; VKM B-1314	BAControl-5	990358	990360	-
		BAControl-10	990359	990361	-
		BACuanti	990365	990366	-
		BACuali	990355 Qualitative material		
<i>Pseudomonas aeruginosa</i> (CECT 111)	WDCM 00026; ATCC 9027; BUCSAV 278; CCM 1961; CCRC 11633; CCTM La 3362; CCUG 22801; CIP 82.118; CNCTC Ps 37/65; DSMZ 1128; DSMZ 1385; Hugh 813; IAM 10374; IFO 13275; IMET 10905; LMG 8029; NRRL B-800; PCM 2562; RH 813	BAControl-5	990236	990251	990376
		BAControl-10	990237	990252	990377
		BACuanti	990238	990253	-
		BACuali	990182 Qualitative material		
<i>Salmonella enterica subsp. enterica serovar Abony</i> (CECT 545)	WDCM 00029; NCTC 6017; CCTM La 2697; CCUG 21354; CIP 80.39; CNCTC SK 103; DSM 4224; PCM 2564; 74	BAControl-5	990230	990272	-
		BAControl-10	990231	990273	-
		BACuanti	990232	990274	-
		BACuali	990200 Qualitative material		
			Part No.		

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Pharmacopoeia

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/0,1 mL)		
			LOW <100	HIGH >100	EXTRA-HIGH (10 ⁵ -10 ⁸ ufc)
<i>Salmonella enterica subsp. enterica serovar Typhimurium</i> (CECT 4594)	WDCM 00031; ATCC 14028; CCRC 10747; CDC 6516-60; CIP 104115; NCIMB 13284	BAControl-5	990227	990269	-
		BAControl-10	990228	990270	-
		BACuanti	990229	990271	-
		BACuali	990193 Qualitative material		
<i>Staphylococcus aureus</i> (CECT 239)	WDCM 00032; ATCC 6538; CCRC 12154; CCTM La 2103; CCUG 10778; CIP 4.83; CNCTC Mau 29/58; DSMZ 799; FDA 209; FIRDI 941; HMGB B865; IAW 34; IFO 13276; IMET 10761; LMD 46.64; LMG 8064; NCTC 10788; VTT E-70045	BAControl-5	990233	990248	990374
		BAControl-10	990234	990249	990375
		BACuanti	990235	990250	-
		BACuali	990175 Qualitative material		
<i>Staphylococcus epidermidis</i> (CECT 232 T)	WDCM 00132; ATCC14990; AMIF strain Fussel; BTCC 2124; CCM 2124; CCRC 10785; CCTM La 2817; CCUG 18000; CIP 81.55; DSM 20044; GISK 202001; IAM 12013; JCM 2414; LMG 10474; NCAIM B.01066; NCIMB 12721; NCTC 11047; PCM 2118; Hugh RH 2466	BAControl-5	990330	990336	-
		BAControl-10	990331	990337	-
		BACuanti	990333	990339	-
		BACuali	990341 Qualitative material		
			Part No.		

If you cannot find the strain you are looking for, please feel free to contact us by our email **comercial@ielab.es**, or by phone + 34 966 10 55 01

Pharmacopoeia (double quantification value)

Reference material quantified by means of 0.1 mL spread plate methods, in both general and specific culture medium (as indicated in European Pharmacopoeia, part 2.6.13), for each microorganism included in the table below. The concentration is obtained after dissolving one tablet in 20mL of sterile water, following the User Guide that is provided with the product.

SPECIES (Traceability)	OTHER CULTURE COLLECTION NUMBERS	TYPE OF MATERIAL	CONCENTRATION (cfu/0,1 mL)
			LOW < 100
<i>Aspergillus brasiliensis - niger</i> (CECT 2574)	WDCM 00053; ATCC 16404; B 39906; B 42936; CABIM 149007; CBS 733.88; CCTM La 2212; DSMZ 1387; DSMZ 1988; FRF 6034; IFO 9455; IHEM 2311; IHEM 3766; IHEM 3794; IMI 149007; MUCL 29039; NCPF 2275; Ringel WLRI 034(120); UMIP 1431.8	BAControl-5 BAControl-10	990690
			990691
<i>Bacillus subtilis</i> (CECT 356)	WDCM 00003; ATCC 6633; BTCC 7241; BUCSAV 425; CCM 1999; CCRC 10447; CCTM La 2114; CCUG 10779; CFBP 1963; CIP 52.62; CNCTC Bs 8/58; DSMZ 347; GISK 010011; Hankey B14; HMGB B100; HNCMB 100007; IAM 1069; IAW 15; IFO 3134; IFO 13720; IL 13; IMET 10880; JCM 2499; LMD 89.157; LMD 47.15; LMG 8197; NCAIM B.01268; NCFB 1733; NCIMB 8566; NCTC 10400; NRRL NRS-231; NRS 231; PCM 219; PCM 1949; PCM 2021; PZH 729; VKM 720; VTT E-85231; WHO 9	BAControl-5 BAControl-10	992717
			992718
<i>Candida albicans</i> (CECT 1394)	WDCM 00054; ATCC 10231; B 42904; CBS 6431; CCTM La 2785; CCY 29-3-106; DSMZ 1386; Emmons 3149; HAMB1 484; IFO 1594; IHEM 4263; JCM 2085; MUCL 30114; NCPF 3179; NCYC 1363; NIH 3147; UMIP 48.72; VTT C-85161	BAControl-5 BAControl-10	990702
			990703
<i>Clostridium sporogenes</i> (CECT 797)	ATCC 11437; CCRC 13856; CCTM La 3546; CCUG 31316; CIP 100651; IFO 14293; McClung 2006; NCAIM B.01416; NCIMB 12343	BAControl-5 BAControl-10	990704
			990705
<i>Clostridium sporogenes</i> (CECT 485)	WDCM 00008; ATCC 19404; CCM 4409; CCRC 11258; CCTM La 2951; CCUG 7489; CCUG 18371; CIP 79.3; CNCTC CI 66/79; DSMZ 1664; LMD 85.28; LMG 10143; NCFB 1710; NCIMB 532; Robertson SR5	BAControl-5 BAControl-10	990706
			990707
<i>Escherichia coli</i> (CECT 516)	WDCM 00012; ATCC 8739; CCRC 11634; CCTM La 2194; CCUG 10979; CIP 53.126; DSMZ 1576; Crooks; IFO 3972; IMET 11121; LMG 8063; NCFB 904; PCM 2561; VTT E-76039	BAControl-5 BAControl-10	990692
			990693
<i>Pseudomonas aeruginosa</i> (CECT 111)	WDCM 00026; ATCC 9027; BUCSAV 278; CCM 1961; CCRC 11633; CCTM La 3362; CCUG 22801; CIP 82.118; CNCTC Ps 37/65; DSMZ 1128; DSMZ 1385; Hugh 813; IAM 10374; IFO 13275; IMET 10905; LMG 8029; NRRL B-800; PCM 2562; RH 813	BAControl-5 BAControl-10	990700
			990701
<i>Salmonella enterica subsp. enterica serovar Abony</i> (CECT 545)	WDCM 00029; NCTC 6017; CCTM La 2697; CCUG 21354; CIP 80.39; CNCTC SK 103; DSM 4224; PCM 2564; 74	BAControl-5 BAControl-10	990696
			990697
<i>Salmonella enterica subsp. enterica serovar Typhimurium</i> (CECT 4594)	WDCM 00031; ATCC 14028; CCRC 10747; CDC 6516-60; CIP 104115; NCIMB 13284	BAControl-5 BAControl-10	990694
			990695
<i>Staphylococcus aureus</i> (CECT 239)	WDCM 00032; ATCC 6538; CCRC 12154; CCTM La 2103; CCUG 10778; CIP 4.83; CNCTC Mau 29/58; DSMZ 799; FDA 209; IRDI 941; HMGB B865; IAW 34; IFO 13276; IMET 10761; LMD 46.64; LMG 8064; NCTC 10788; VTT E-70045	BAControl-5 BAControl-10	990698
			990699
			Part No.

BAControl Selection

We present a product within our range of ready-to-use applications for quality control of microorganisms in order to meet water control laws, also for pharmaceutical, food and many other industries. BAControl Selection has been specially designed for Bioburden essays, Growth Promotion Tests and Nutritional Adequacy Tests.

After adding 20 mL of water, the tablet is dissolved in just 10 minutes, and then BAControl allows to obtain an exact concentration of the desired microorganism.

The tablets can be stored for long time, following the conditions indicated in the User Guide, until the expiry date, which is indicated in the Analysis Report that is supplied with the product.

BAControl Selection PHARMA

Growth Promotion Kit (5 units)

Concentration: <100 cfu/0.1 mL

Suggested applications:

- Growth Promotion
- Nutritional adequacy
- Microbial limits
- Microbial enumeration

Aspergillus brasiliensis traceable CECT 2574
Bacillus subtilis traceable CECT 356
Candida albicans traceable CECT 1394
Clostridium sporogenes traceable CECT 797
Pseudomonas aeruginosa traceable CECT 111

Part No. 990312

Growth Promotion Kit (10 units)

Concentration: <100 cfu/0.1 mL

Suggested applications:

- Growth Promotion
- Nutritional adequacy
- Microbial limits
- Microbial enumeration

Aspergillus brasiliensis traceable CECT 2574
Bacillus subtilis traceable CECT 356
Candida albicans traceable CECT 1394
Clostridium sporogenes traceable CECT 797
Pseudomonas aeruginosa traceable CECT 111

Part No. 990313

Challenge Test Kit (5 units)

Concentration: 10⁵-10⁶ cfu/0.1 mL

Suggested applications:

- Challenge Test
- Antimicrobial effectiveness
- Preservative efficacy

Aspergillus brasiliensis traceable CECT 2574
Candida albicans traceable CECT 1394
Escherichia coli traceable CECT 516
Pseudomonas aeruginosa traceable CECT 111
Staphylococcus aureus traceable CECT 239

Part No. 990314

Challenge Test Kit (10 units)

Concentration: 10⁵-10⁶ cfu/0.1 mL

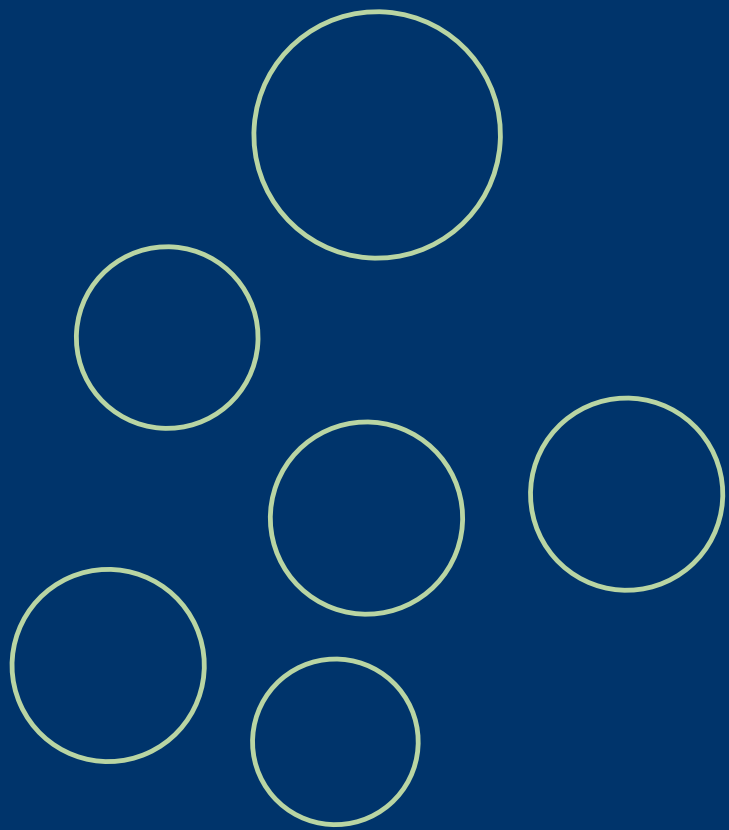
Suggested applications:

- Challenge Test
- Antimicrobial effectiveness
- Preservative efficacy

Aspergillus brasiliensis traceable CECT 2574
Candida albicans traceable CECT 1394
Escherichia coli traceable CECT 516
Pseudomonas aeruginosa traceable CECT 111
Staphylococcus aureus traceable CECT 239

Part No. 990340

Please, you can find more information about these strains in this catalogue



ielab KITS

MOLECULAR DIAGNOSTIC KITS

Molecular detection/quantification techniques have revolutionized diagnosis over the past years. Polymerase Chain Reaction (PCR), and more specifically Real-Time PCR (qRT-PCR) has been turned into one of the most powerful in vitro diagnostic tool.

ielab presents, within the framework of its line of products for microbiological diagnostics, a new range of molecular diagnostic kits, which have been specially designed to improve microbiological diagnostics.

Properties of the Kits

- All the necessary reagents are included in the kit and are ready-to-use.
- Freeze-dried reagents.
- Transport at room temperature.
- Easy-to-use. It minimizes the number of manipulations reducing time and possible errors.
- Exceptional sensitivity, specificity and reproducibility.
- Maximum reliability. Use of positive internal controls.
- Capacity to be automated.
- Great versatility and flexibility in sample analysis. From 1 to 96 samples per assay.
- Flexibility. Adaptable to any commercial thermocycler.
- Quick and easy interpretation of results.



Advantages of the Kits

- **Simplicity:** Only a few pipette transfers are needed.
- **Rapidity:** Results in less than 3 hours.
- **Quality:** Positive controls are used both internal and external.
- **Reliability:** The extraction kits are adapted to the existing different matrix types.
- **Delivery:** Transport at room temperature.
- **Shelf-life:** 24 months

ielab kits

All these kits are characterized by their being extremely easy to use and can be employed by any analyst. Furthermore, within the kit it is supplied the link where the user can download a detailed manual for the use of the kit.

Kits for sample preparation

Kits for the complete preparation of water samples, in order to get them ready for further analysis by PCR techniques.

Kit for the concentration of water samples

Concentration of the microorganisms present in water samples prepared by filtration and concentration cartridges, for later testing for the presence of *Legionella* or other bacteria by PCR techniques.

Material description	Cat. No.
Kit for concentration of water samples (35 test), includes membranes and cartridges.	990075

Kit for the preparation of samples of “clean” water

System for the extraction and purification of DNA from water samples in which it is assumed that the microbiota and organic material contents are low (for example, in potable waters). This kit allows the production of DNA with a quality and quantity enough for the analysis of the presence of *Legionella* or other bacteria by PCR techniques.

Material description	Cat. No.
Kit for preparation of samples of clean water (70 tests)	990074
Filtration membranes (100 units)	990108

Kit for the preparation of samples of “dirty” water

System for the extraction and purification of DNA from “dirty” water samples (for example, water from refrigeration towers). This kit allows the production of DNA with a quality and quantity sufficient for the analysis of the presence of *Legionella* or other bacteria by PCR techniques. It is particularly useful for the elimination of possible inhibitors of the PCR reactions.

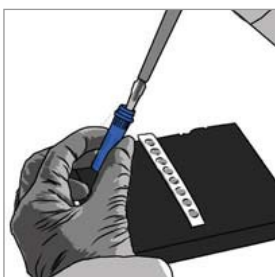
Material description	Cat. No.
Kit for preparation of samples of dirty water (35 tests)	990076
Filtration membranes (100 units)	990108

Kits for detection and/or quantification

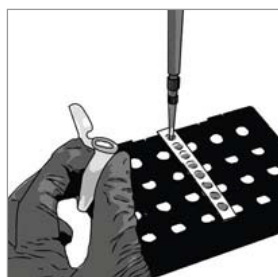
Kits for the quantitative or qualitative detection of microorganisms by PCR. They include the corresponding positive and negative controls.

Their design incorporates specific positive internal controls which allow the evaluation of the appearance of false negatives due to the presence of PCR inhibitors in the sample..

Workflow



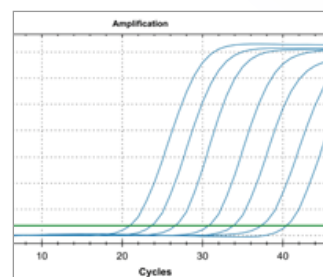
Step 1
Add rehydration
buffer



Step 2
Add samples
and control



Step 3
Amplification
protocol



Step 4
Results
interpretation

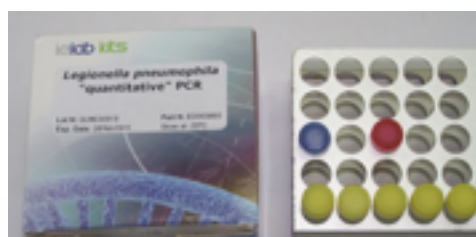
Kit for the real time detection and quantification of Legionella by PCR

Allows the detection and quantification of *Legionella pneumophila* and *Legionella* spp. in DNA extracted from water samples from diverse sources.

Each kit contains all the necessary material to conduct 70 tests

Material description*	Cat. No.
Kit for detection and quantification of Legionella spp. High profile tubes	992402
Kit for detection and quantification of Legionella spp. Low profile tubes	992403
Kit for detection and quantification of Legionella pneumophila. High profile tubes	992400
Kit for detection and quantification of Legionella pneumophila. Low profile tubes	992401

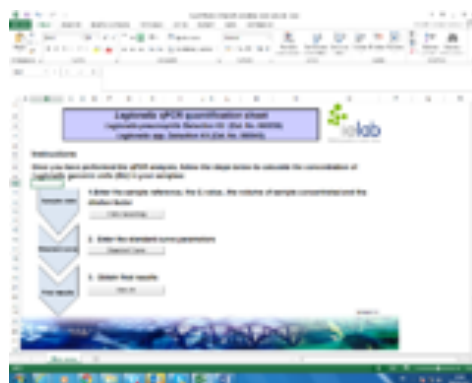
*You can check if your thermocycler is equipped with a high or low profile block in the table included at the end of this catalogue.



OTHER COMPLEMENTARY MATERIAL

Quantification and Validation software

ielab offers two spreadsheets as tools that can help user in the tasks of quantification and validation of results, which are high time-consuming activities in the laboratory. The Quantification spreadsheet allows a quick way of calculating the number of Genomic Units in the samples analyzed. The validation spreadsheet can be used for the characterization and the secondary validation of these two methods based on the use of the ielab *Legionella* spp qPCR kit (Cat. No. 992402; Cat. No. 992403) and *Legionella pneumophila* qPCR kit (Cat. No. 992400; Cat. No. 992401) and following the ISO/TS 12869



Material description*	Cat. No.
qPCR Quantification	992405
qPCR Validation	992404

REFERENCE MATERIAL FOR MOLECULAR BIOLOGY

BAControl-PCR

Quantitative reference material specially designed for PCR, supplied in a tablet format. Each tablet contains a determined number of deactivated cells, and it is accompanied by a certificate informing about the number of genomic units (g.u.) per tablet.

This allows a control over the whole analytic process, from the initial sample to the final analysis.

This material has a shelf life of 12 months since the release date and it is provided in a dispenser of 5 tablets.

Species (Traceability)	Other Culture COLLECTION Numbers	Concentration (genomic units)	Cat. No.
<i>Legionella pneumophila</i> (CECT 7109 T)	WDCM 00107; ATCC 33152; Philadelphia 1; CCUG 9568; DSM 7513; JCM 7571; NCTC 11192;	low (>4 and <6 log)	990069
		high (>6 and <8 log)	990083

BAControl-DNA

Quantitative material presented in vials with a freeze-dried format, whose DNA quantity expressed in µg/vial is certified.

Designed for validation and quality control of the PCR amplification phase.

It has a shelf life of 9 months since the release date, and it is supplied in independent vials accompanied by another vial of sterile water (PCR grade). Apart from the available species, we offer the possibility of preparing these materials for other species of microorganisms.

The microorganisms currently available are the followings:

Species (Traceability)	Other Culture COLLECTION Numbers	Cat. No.
<i>Legionella pneumophila</i> (CECT 7109 T)	WDCM 00107; ATCC 33152; Philadelphia 1; CCUG 9568; DSM 7513; JCM 7571; NCTC 11192	990060
<i>Escherichia coli</i> (CECT 434)	WDCM 00013; ATCC 25922; CCM 3954; CCRC 14902; CCTM La 2184; CCUG 7736; CCUG 17620; CCUG 21456; CIP 76.24; CNCTC Ec 327/73; DSM 1103; FDA Seattle 1946; GISK 240533; HER 1176; IFO 15034; JCM 5491; LMG 8223; NCIMB 12210; PCM 2057	990123

COMPATIBILITY OF THE MOST COMMON qPCR EQUIPMENT

Low or high profile tubes can be used in all PCR thermocyclers equipped with low or high/conventional profile block, respectively, according to the systems listed in the table below. If you do not find your thermocycler in this list, please contact us.

LOW PROFILE BLOCK THERMOCYCLERS

Manufacturer	Model
Agilent Technologies	AriaMx/AriaDx Real-Time PCR System
Applied Biosystems	7500 Fast/7500 Fast Dx Real-Time PCR System (1) (5)
	QuantStudio™ 12K Flex 96-well Fast
	QuantStudio™ 6 Flex 96-well Fast
	QuantStudio™ 7 Flex 96-well Fast
	QuantStudio™ 3 Fast Real-Time PCR System (2)
	QuantStudio™ 5 Fast/QuantStudio™ 5 Real-Time PCR System
	StepOne Plus™ Real-Time PCR System (2)
	StepOne™ Real-Time PCR System (2)
	ViiA™ 7 Fast Real-Time PCR System
	Bio-Rad
Mini Opticon™ Real-Time PCR Detection System (3)	
Bio Molecular Systems	Mic Real Time PCR Cyclor (4)
Cepheid	SmartCycler® (4)
Qiagen	Rotor-Gene® Q (4)
Roche	LightCycler @480 Real-Time PCR System (5)
	LightCycler @96 Real-Time PCR System (5)
	Cobas z480 Analyzer (5)

HIGH PROFILE BLOCK THERMOCYCLERS

Manufacturer	Model
Abbott	Abbott m2000 RealTime System (5)
Applied Biosystems	7300 Real-Time PCR System (2) (5)
	7500 Real-Time PCR System (5)
	7900 HT Real-Time PCR System (2)
	ABI PRISM 7000 (3)
	ABI PRISM 7700 (2)
	QuantStudio™ 12K Flex 96-well
	QuantStudio™ 6 Flex 96-well
	QuantStudio™ 7 Flex 96-well
	QuantStudio™ 3 Real-Time PCR System (2)
	QuantStudio™ 5 Fast/QuantStudio™ 5 Real-Time PCR System
ViiA™ 7 Real-Time PCR System	
Analytik Jena Biometra	TOptical
	qTOWER 2.0
BIONEER	Exicycler™ 96
Bio-Rad	CFX96TM Deep Well / CFX96TM DeepWell IVD Real-Time PCR Detection System
	iCycleriQ™ Real-Time PCR Detection System
	iCycler iQ™5 Real-Time PCR Detection System
	MyiQ™ Real-Time PCR Detection System (3)
	MyiQ™2 Real-Time PCR Detection System (3)
Bio Molecular Systems	Mic Real Time PCR Cyclor (4)
Cepheid	SmartCycler® (4)
DNA-Technology	DTprime Real-time Detection Thermal Cyclor
	DTlite Real-Time PCR System
Eppendorf	Mastercycler™ep realplex
Qiagen	Rotor-Gene® Q (4)
Stratagene / Agilent Technologies	Mx3000P™ Real Time PCR System
	Mx3005P™ Real Time PCR System
VIASURE	VIASURE 48 Real Time PCR System
	VIASURE 96 Real Time PCR System

- (1) Select Ramp Speed "Standard".
- (2) No lecture in channel Cy5.
- (3) Lecture only in channels FAM and HEX.
- (4) The product must be reconstituted following the appropriated procedure (see Test Procedure) and transfer to specific tubes Mic, SmartCycler® or Rotor-Gene® Q.
- (5) Needs a special support that fits with these qRT-PCR equipments.

Currently, **ielab** works with several distributors around the world. You can check them in our web: www.ielab.es and review the geographical areas where they are present.

If you are interested in **ielab** products and belong to these geographical areas you should contact your local distributor. For the rest of the areas, you could contact us by our e-mail comercial@ielab.es, or by phone + 34 966 10 55 01.

GENERAL CONDITIONS

Usual delivery time: 10 working days since we receive purchase order.
For URGENT shipment orders, an extra tax could be applied.

REFERENCE MATERIAL / PURCHASE ORDER

DATA FOR PRODUCTS DELIVERY

Laboratory or Entity

Contact person

Shipping address

Postal code

City Country

Phone 1 Phone 2 Fax

Email

part no. batch (*) units

part no. batch (*) units

part no. batch (*) units

(*) only in case of physical-chemical material.

Information about BACredi Accredited Reference Material can be found in page 18 of this catalogue.

Your order number:

Date

Signature:

DATA FOR INVOICING

Company

VAT No. Contact person

Address Postal code

City Country

Phone 1 Phone 2 Fax

Email

If you want to place an order, please fill in this form and send it:

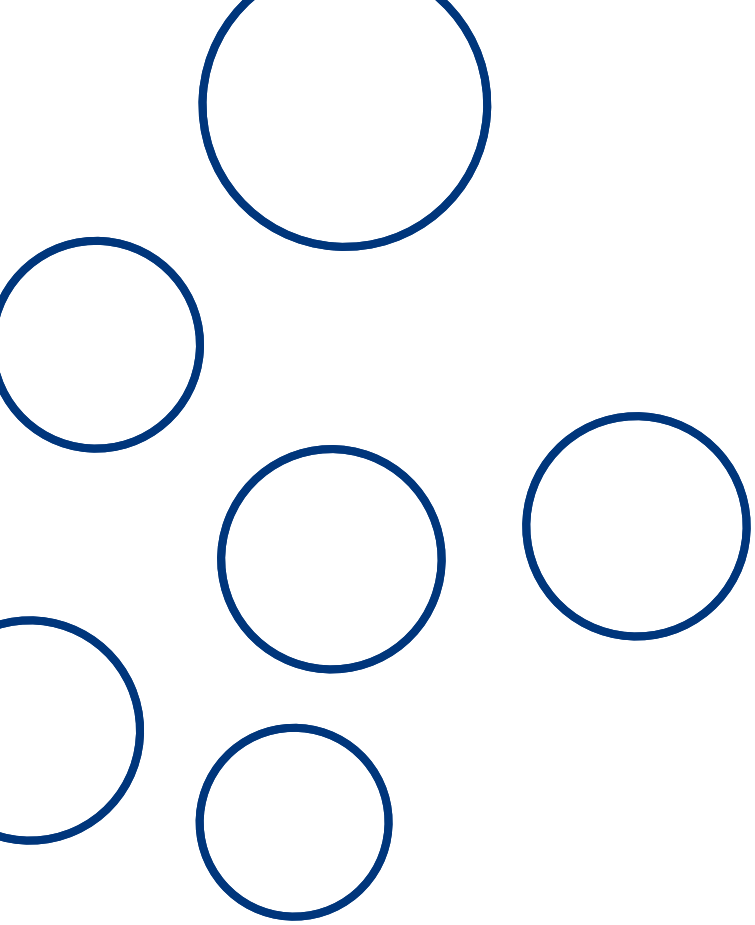
by e-mail to:
comercial@ielab.es

by post to:
**C/ Dracma,7 (P.I. Las Atalayas)
03114 Alicante (Spain)**

Or, if you prefer you can send your own order with the desired references and quantities to
comercial@ielab.es

TERMS AND CONDITIONS

The ielab reference materials are of an exclusively scientific nature and are used at the laboratory level. ielab is not responsible for any other purpose for which they may be employed. For more information, see the ielab full document of terms and conditions.



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