



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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BIOLOGICAL

Valid To: May 31, 2023

Certificate Number: 3921.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on food, fruits, vegetables, juices, wines, meat, dairy products, prepared meal, eggs, fat, flour, animal products and feed, drinking water, continental water, utility water, surfaces, utensils, ambiances, and handlers:

Test	Test Method	Reference Method(s)¹
Detection (Presence/Absence)		
Detection of Mesophiles, Thermophiles, Aerobes, and Anaerobes in Food, Canned Food, Fruits, Vegetables, Juices, Wines, Fat, Flour, Animal Products, and Feed	MQM-005	NCh 2731
<i>Listeria monocytogenes</i> in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Flour, Animal Products, and Feed	MQM-003	NCh 2657
<i>L. monocytogenes</i> in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Flour, Animal Products, and Feed	MQM-079	ISO 11290/1
<i>L. monocytogenes</i> on Hands, Surfaces, and Utensils	MQM-031	NCh 2657
<i>Listeria spp.</i> in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, Feed, Surfaces, Utensils, and Handlers	MQM-047	NCh 2657
<i>Salmonella</i> – NCh in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meal, Eggs, Fat, Flour, Animal Products, and Feed	MQM-006	NCh 2675
<i>Salmonella</i> in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meals, Eggs, Fat, Flour, Animal Products, and Feed	MQM-007	ISO 6579
<i>Salmonella</i> on Handlers, Surfaces, and Utensils	MQM-033	NCh 2675
<i>Staphylococcus aureus</i> by on Handlers, Surfaces and Utensils	MQM-042	NCh 2671
Enumeration – Plate Count		
Acid Lactic Bacteria in Food, and Feed	MQM-045	ISO 15214
Aerobic Mesophiles (35°C) in Free Sedimentation and Environments	MQM-039	Standard Methods for the Examination of Dairy Products Free Sedimentation
Aerobic Mesophiles (35°C) – Qualification in Ambiances, Surfaces, and Utensils	MQM-030	NCh 2659

Test	Test Method	Reference Method(s)¹
Aerobic Mesophiles (35°C) in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, and Feed	MQM-021	NCh 2659
Aerobic Mesophiles (35°C) on Hands, Surfaces, and Utensils	MQM-040	NCh 2659
<i>Bacillus cereus</i> in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meal, Fat, Flour, Animal Products, and Feed	MQM-010	BAM Ch. 14
<i>Clostridium perfringens</i> and Sulfite-Reducing Anaerobes in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Flour, Animal Products, and Feed	MQM-011	BAM Ch. 16
Enterobacteria in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Fat, Flour, Animal Products, and Feed	MQM-016	NCh 2676
Enterobacteria on Handlers, Surfaces, and Utensils	MQM-036	NCh 2676
<i>Escherichia coli</i> in Food and Surfaces	MQM-053	ISO 16649-2
<i>E. coli</i> on Handlers, Surfaces and Utensils	MQM-043	NCh 2636
Fecal Enterococci in Drinking, Continental, and Utility Waters	MQM-051	ISO 7899-2
Heterotrophs in Drinking, Continental, and Utility Waters	MQM-056	SM 9215-B
<i>L. monocytogenes</i> CFU in Food, Fruits, Vegetables, Juices, Wines, Fats, Meat, Dairy Products, Prepared Meals, Sugars, Eggs, Flour, Animal Products, and Feed	MQM-019	NCh 2657/2
<i>Lactobacillus</i> spp. in Food, and Feed	MQM-044	ISO 15214
Mold and Yeast – Free Sedimentation on Ambiances	MQM-037	Standard Methods for the Examination of Dairy Products Free Sedimentation
Mold and Yeast in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meals, Sugar, Eggs, Fat, Flour, Animal Products, and Feed	MQM-018	NCh 2734
Mold and Yeast on Handlers, Surfaces, and Utensils	MQM-038	NCh 2734
<i>S. aureus</i> – Coagulase Positive CFU/g in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meals, Sugar, Eggs, Flour, Animal Products, and Feed	MQM-023	NCh 2671
<i>S. aureus</i> on Handlers, Surfaces, and Utensils	MQM-041	NCh 2671
Total Coliforms in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meal, Fat, Flour, Animal Products, and Feed	MQM-012	NCh 2635/2
Total Fecal Coliforms on Surfaces, Utensils, and Handlers	MQM-035	NCh 2635/2
Membrane Filtration		
Detection and Counting of <i>E. coli</i> and Coliform Bacteria by Chromogenic in Drinking, Continental, and Utility Waters	MQM-027	NCh 9308/1, SM 9222B, 9222D, 9222G
<i>L. monocytogenes</i> in Drinking, and Utility Waters	MQM-052	NCh 2657
<i>Salmonella</i> spp. in Drinking, and Utility Waters	MQM-050	SM9260B
Total Coliforms and <i>E. coli</i> in Drinking, Continental, and Utility Water	MQM-026	NCh 1620/2 ME-02-2007

Test	Test Method	Reference Method(s)¹
MPN		
Determination of <i>Vibrio parahaemolyticus</i>	MQM-055	BAM Ch. 9
<i>E. coli</i> in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, and Feed	MQM-017	NCh 2636
<i>S. aureus</i> – Coagulase Positive in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, and Feed	MQM-024	NCh 2828
Total and Fecal Coliforms, and <i>E. coli</i> ISO in Drinking, Continental, and Utility Waters	MQM-028	SM 9221B, 9221E, 9221F
Total and Fecal Coliforms in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Flour, Animal Products, and Feed	MQM-013	NCh 2635/1
Total Coliforms, and <i>E. coli</i> (Chromogenic Method) in Drinking, Continental, and Utility Waters	MQM-029	NCh 2043
Total Coliforms and <i>E. coli</i> in Drinking, Continental, and Utility Waters	MQM-025	NCh 1620/1 ME-01-2007
Total Fecal Coliforms, and <i>E. coli</i> on Handlers, Surfaces, and Utensils	MQM-048	NCh 2635/1 NCh 2636
PCR		
Detection of <i>S. aureus</i> and <i>E. coli</i> by Multiplex PCR Final Point on Surfaces, Utensils, Handlers Waters and Food	MQV-007	- Furrer et al, 1991. Detection and identification of <i>Listeria monocytogenes</i> in cooked sausage products and in milk by in vitro amplification of haemolysin gene fragments. J. Appl. Bacteriol. 70:372–379 - Shome, et al, 2011. Multiplex PCR assay for species identification of bovine mastitis pathogens. J. Appl. Microbiol. 111 (6):1349-1356 - Tsen, et al, 1994. Possible use of a polymerase chain reaction method for specific detection of <i>Salmonella</i> in beef. J. Ferment. Bioeng. 77:137–143. - Zhang et al, 2009. Simultaneous detection of <i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> , <i>Salmonella enterica</i> and <i>Escherichia coli</i> O157:h7 in food samples using multiplex PCR method. J. Food Safety. 29(3): 348-363
Detection of <i>S. aureus</i> , <i>Salmonella</i> , <i>Listeria monocytogenes</i> , and <i>E. coli</i> by Multiplex PCR Final Point on Surfaces, Utensils, Handlers, Waters and Food	MQV-006	- Furrer et al, 1991. Detection and identification of <i>Listeria monocytogenes</i> in cooked sausage products and in milk by in vitro amplification of haemolysin gene

Test	Test Method	Reference Method(s) ¹
		fragments. J. Appl. Bacteriol. 70:372–379 - Shome, et al, 2011. Multiplex PCR assay for species identification of bovine mastitis pathogens. J. Appl. Microbiol. 111 (6):1349-1356 - Tsen, et al, 1994. Possible use of a polymerase chain reaction method for specific detection of <i>Salmonella</i> in beef. J. Ferment. Bioeng. 77:137–143. - Zhang et al, 2009. Simultaneous detection of <i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> , <i>Salmonella enterica</i> and <i>Escherichia coli</i> O157:h7 in food samples using multiplex PCR method. J. Food Safety. 29(3): 348-363
Detection of <i>Salmonella</i> , and <i>Listeria monocytogenes</i> by Duplex PCR Final Point on Surfaces, Utensils, Handlers Waters and Food	MQV-008	- Furrer et al, 1991. Detection and identification of <i>Listeria monocytogenes</i> in cooked sausage products and in milk by in vitro amplification of haemolysin gene fragments. J. Appl. Bacteriol. 70:372–379 - Shome, et al, 2011. Multiplex PCR assay for species identification of bovine mastitis pathogens. J. Appl. Microbiol. 111 (6):1349-1356 - Tsen, et al, 1994. Possible use of a polymerase chain reaction method for specific detection of <i>Salmonella</i> in beef. J. Ferment. Bioeng. 77:137–143. - Zhang et al, 2009. Simultaneous detection of <i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> , <i>Salmonella enterica</i> and <i>Escherichia coli</i> o157:h7 in food samples using multiplex PCR method. J. Food Safety. 29(3): 348-363
Detection of SARS-CoV-2 by Reverse Transcription and PCR on Surfaces, Utensils, Handlers, and Food	MQV-004	- CDC 2019-Novel Coronavirus (2019-nCoV) - Wang X, Zhou C, Tang K, Zhou Y and Li K. 2009. A rapid one-step multiplex RT-PCR assay for the simultaneous detection of five citrus viroids in China. European Journal Plant Pathology 124: 175-180. - Sieburth PJ, Irely M, Garnsey SM and Owens RA. 2002. The use of RT-PCR



Test	Test Method	Reference Method(s)¹
		<p>in the Florida citrus viroid indexing program. Pp. 230-239. In: Duran Vila N, Milne RG, and da Grafa JV (eds.). Proceedings of the 15th IOCV Conference. Riverside, CA. 456p.</p> <p>- Corman, et al 2020. Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR. Euro Surveill 2020;25(3)</p> <p>- Jung et al, 2020. Comparative analysis of primer-probe sets for the laboratory confirmation of SARS-CoV-2.</p> <p>- Nalla et al, 2020. Comparative performance of SARS-CoV-2 detection assays using seven different primer/probe sets and one assay kit. J Clin Microbiol 2020</p> <p>- Reina y Suarez, 2020. Evaluación de diferentes genes en la detección por RT-PCR del SARSCoV-2 en muestras respiratorias y su evolución en la infección. Rev Esp Quimioter. 2020; 33(4): 292–293.</p> <p>- Lu et al, 2020. US CDC Real-Time Reverse Transcription PCR Panel for Detection of Severe Acute Respiratory Syndrome Coronavirus 2. Emerg Infect Dis. 2020;26(8):1654-1665.</p>
SARS-CoV-2 by RT-qPCR on Surfaces, Utensils, Handlers and Food	MQV-002	<p>- CDC 2019-Novel Coronavirus (2019-nCoV)</p> <p>- Corman, et al 2020. Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR. Euro Surveill 2020;25(3)</p> <p>- Elfiky AA. SARS-CoV-2 RNA dependent RNA polymerase (RdRp) targeting: an in silico perspective. J Biomol Struct Dynamics [internet]. 2020 May 6 [citado 4 jun. 2020]:[aprox. 9 p.].</p> <p>- Jung et al, 2020. Comparative analysis of primer-probe sets for the laboratory confirmation of SARS-CoV-2.</p> <p>- Nalla et al, 2020. Comparative performance of SARS-CoV-2 detection assays using seven different</p>



Test	Test Method	Reference Method(s)¹
		primer/probe sets and one assay kit. J Clin Microbiol 2020 - Reina y Suarez, 2020. Evaluación de diferentes genes en la detección por RT-PCR del SARSCoV-2 en muestras respiratorias y su evolución en la infección. Rev Esp Quimioter. 2020; 33(4): 292–293. - Lu et al, 2020. US CDC Real-Time Reverse Transcription PCR Panel for Detection of Severe Acute Respiratory Syndrome Coronavirus 2. Emerg Infect Dis. 2020;26(8):1654-1665. - Onoda M, Martínez Chamorro MJ; Grupo de Patología Infecciosa de la Asociación Española de Pediatría de Atención Primaria. Pruebas diagnósticas de laboratorio de COVID-19 [internet]. España: Sociedad Española de Pediatría de Atención Primaria; abr. 2020 [citado 4 jun. 2020].
<u>Petrifilm Enumeration</u>		
Aerobic Mesophiles in Food, Fruits, Vegetables, Juices, Meat, Dairy Products, Prepared Meals, Wines, Fat, Flour, Animal Products, and Feed	MQM-009	AOAC 990.12
Coliforms, and <i>E. coli</i> in Food, Fruits, Vegetables, Meat, Dairy Products, Prepared Meals, Juices, Wines, Fat, Flour, Animal Products, and Feed	MQM-014	AOAC 991.14, 998.08
Enterobacteria in Food, Fruits, Vegetables, Juices, Wines, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Fat, Flour, Animal Products, and Feed	MQM-015	AOAC 2003.01
Mold and Yeast – Rapid Yeast and Mold Petrifilm™ in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, Feed, Surfaces, Utensils, and Handlers	MQM-058	AFNOR 3M / 13-07-14
Mold and Yeast in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, and Feed, Surfaces, Utensils, and Handlers	MQM-046	AOAC 997.02
<i>S. aureus</i> in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Pastas, Flour, Animal Products, and Feed	MQM-022	AOAC 2003.01, 2003.08



Test	Test Method	Reference Method(s)¹
<u>VIDAS Detection</u>		
<i>E.coli</i> O157 in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, Feed, Handlers, Surfaces, Utensils, and Water.	MQM-002	AFNOR N° BIO 12/25-05/09
<i>L. monocytogenes</i> – VIDAS in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Flour, Animal Products, and Feed	MQM-004	AFNOR N° BIO 12-11-03/04
<i>L. monocytogenes</i> – VIDAS on Surfaces, and Utensils	MQM-032	AFNOR N° BIO 12-11-03/04
<i>Listeria</i> spp – VIDAS UP in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Eggs, Flour, Animal Products, and Feed on Handlers, Surfaces and Utensils	MQM-057	AFNOR N° BIO 12/33-05/12
<i>L. monocytogenes</i> – VIDAS XPRESS in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Sugar, Eggs, Flour, Animal Products, Feed, Surfaces, Utensils, and Handlers	MQM-049	AFNOR N° BIO 12/27-02/10
<i>Salmonella</i> – VIDAS in Food, Fruits, Vegetables, Juices, Wines, Fat, Meat, Dairy Products, Prepared Meal, Eggs, Flour, Animal Products, and Feed	MQM-008	AFNOR N° BIO 12/16/09/05
<i>Salmonella</i> – VIDAS on Handlers, Surfaces, and Utensils	MQM-034	AFNOR N° BIO 12/16/09/05

¹The reference methods associated with the accredited method of analysis relate only to surfaces, handlers, utensils, waters, and food matrices tests detailed in this document.



Accredited Laboratory

A2LA has accredited

QUALIFIED SpA – SANTIAGO

Santiago, CHILE

for technical competence in the field of

Biological Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 13th of May 2021.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3921.03
Valid to May 31, 2023

For the tests to which this accreditation applies, please refer to the laboratory's Biological Scope of Accreditation.