

# CERTIFICATE OF ACCREDITATION

This is to attest

#### PUBLIC HEALTH LABORATORIES

B 738 - R 1124 - BL 311 ALSALMANIYA MANAMA, BAHRAIN

#### **Testing Laboratory TL-1298**

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Expiry Date November 1, 2026

Effective Date October 16, 2025



International Accreditation Service Issued under the authority of IAS management

International Accreditation Service, Inc.
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#### **PUBLIC HEALTH LABORATORIES**

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Accredited to ISO/IEC 17025:2017

Effective Date October 16, 2025

| Biological Testing |  |
|--------------------|--|
| Food               |  |
| BAM Chapter 9      | Enumeration of Vibrio parahaemolyticus   |
| ISO 4832:2006      | Horizontal method for the enumeration of coliforms - Colony count technique  |
| ISO 4833-1:2013    | Horizontal method for the enumeration of microorganisms, Colony count at 30 °C by the pour plate technique TEMPO AC, BioMérieux. Automated enumeration test  |
| ISO 4833-2:2013    | Horizontal method for the enumeration of microorganisms, Colony count at 30 °C by the surface plating technique  |
| ISO 6579-1:2017    | Horizontal method for the detection, enumeration and serotyping of Salmonella VIDAS UP Salmonella (SPT), BioMérieux. Automated detection test  |
| ISO 6611:2004      | Enumeration of colony-forming units of yeasts and/or moulds - Colony-count technique at 25 °C TEMPO MY, BioMérieux. Automated enumeration test   |
| ISO 6888-1:2021    | Horizontal method for the enumeration of coagulase-positive staphylococci (Staphylococcus aureus and other species)  |
| ISO 7932:2004      | Horizontal method for the enumeration of presumptive Bacillus cereus - Colony-count technique at 30 °C   |
| ISO 7937:2004      | Horizontal Method for The Enumeration of Clostridium perfringens - Colony Count Technique  |
| ISO 10272-1:2017   | Horizontal method for detection and enumeration of <i>Campylobacter</i> spp.: Detection method VIDAS Campylobacter (CAM), BioMérieux. Automated detection test   |
| ISO 11290-1:2017   | Horizontal method for the detection and enumeration of <i>Listeria monocyto-genes</i> and of <i>Listeria spp.</i> : Detection method VIDAS Listeria DUO (LDUO), BioMérieux. Automated detection test                 |
| ISO 16649-2:2001   | Horizontal method for the enumeration of β-glucuronidase-positive Escherichia coli, Colony-count technique at 44 °C using 5-bromo-4-chloro-3-indolyl-βD-glucuronide TEMPO EC, BioMérieux. Automated enumeration test |



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| ISO 16654:2001       | Horizontal method for the detection of <i>Escherichia coli</i> O157 VIDAS UP - E. coli O157 including H7 (ECPT), BioMérieux. Automated detection test  |
|----------------------|--|
| ISO 21528-2:2017     | Horizontal method for the detection and enumeration of Enterobacteriaceae, Colony-count technique TEMPO EB, BioMérieux. Automated enumeration test   |
| ISO 21872-1:2017     | Horizontal method for the determination of Vibrio spp., (Detection of potentially enteropathogenic Vibrio parahaemolyticus, Vibrio cholerae and Vibrio vulnificus)   |
| ISO/TS 22964:2006    | Detection of Enterobacter sakazakii (Milk and milk products)   |
| Water                |  |
| ISO 4833-1:2013      | Horizontal method for the enumeration of microorganisms: Colony count at 30 °C by the pour plate technique   |
| ISO 4833-2:2013      | Horizontal method for the enumeration of microorganisms: Colony count at 30 °C by the surface plating technique  |
| ISO 7899-2:2000      | Detection and enumeration of intestinal enterococci: Membrane filtration method IDEXX Enterolert. Most Probable Number (MPN)   |
| ISO 9308-1:2014      | Enumeration of Escherichia coli and coliform bacteria: Membrane filtration method for waters with low bacterial background flora   |
| ISO 9308-2:2012      | Enumeration of Escherichia coli and coliform bacteria - Part 2: Most probable number method IDEXX Colilert-18. Most Probable Number (MPN)  |
| ISO 16266:2006       | Detection and enumeration of Pseudomonas aeruginosa - Method by membrane filtration  |
| ISO 16266-2:2018     | Detection and enumeration of Pseudomonas aeruginosa: Most probable number method IDEXX Pseudalert. Most Probable Number (MPN)  |
| Bacterial Toxin Test |  |
| PHL/003PR032         | Endotoxin Detection test by BCET-RPLA, Oxoid (enterotoxin-diarrhoeal type) Reversed passive latex agglutination test.  |
| PHL/003PR032         | Endotoxin Detection test by SET-RPLA, Oxoid (Enterotoxins A, B, C and D) Reversed passive latex agglutination test. VIDAS Staph enterotoxin II (SET2), BioMérieux (Enterotoxins A, B, C, D, E). Automated detection test |
| Other Tests          | •  |
| PHL/003PR025         | Microbial Identification by MALDI-TOF Microflex System Standard Operating Procedure for Identification of Bacteria, Mould and Yeast, Bruker  |



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| Chemical Testing   |   |  |
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| Food Additives   |   |  |
| AOAC 950.60 (22 <sup>nd</sup> Edition)<br>AOAC 950.61 (22 <sup>nd</sup> Edition)<br>AOAC 988.13 (22 <sup>nd</sup> Edition) | Allura Red (Qualitative) Amaranth (Qualitative) Brilliant Black (Qualitative) Brilliant Blue (Qualitative) Carmosine (Qualitative) Chocolate Brown (Qualitative) Erythrosine (Qualitative) Ponceu 4R (Qualitative) Sunset Yellow (Qualitative) Tartrazine (Qualitative) Dimethyl yellow (Qualitative) Sudan 1, 2, 3, 4 (Qualitative) Sudan Colors (Qualitative) |  |
| AOAC 971.19 (22 <sup>nd</sup> Edition)   | Determination of Salt% in meat, fish, and cheese  |  |
| AOAC 973.31 (22 <sup>nd</sup> Edition)   | Determination of Sodium Nitrate Determination of Sodium Nitrite   |  |
| AOAC 979.08 (22 <sup>nd</sup> Edition)   | Determination of Acesulfame-K Determination of Aspartame Determination of Sorbic Acid   |  |
| AOAC 979.08 (22 <sup>nd</sup> Edition)   | Determination of Potassium Sorbate  |  |
| AOAC 979.08 (22 <sup>nd</sup> Edition)   | Determination of Saccharin  |  |
| AOAC 979.08 (22 <sup>nd</sup> Edition)   | Determination of Sodium Benzoate  |  |
| AOAC 979.08 (22 <sup>nd</sup> Edition)   | Determination of Sorbic Acid  |  |
| AOAC 994.11 (22 <sup>nd</sup> Edition)   | Determination of Benzoic Acid   |  |
| Mineral Heavy Metals A   | Mineral Heavy Metals Analysis in Food and Water   |  |
| AOAC 971.20 (22 <sup>nd</sup> Edition)   | Determination of Copper & Nickel in tea   |  |
| AOAC 997.15 (22 <sup>nd</sup> Edition)   | Determination of Lead in sugars and syrups  |  |



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| AOAC 000 10 (22nd                       | Determination of Codmium, Conner Zing, Iron & Load in Food   |
|---|--|
| AOAC 999.10 (22 <sup>nd</sup> Edition)  | Determination of Cadmium, Copper, Zinc, Iron & Lead in Food  |
| AOAC 2013.06 (22 <sup>nd</sup> Edition) | Determination of Cadmium & Mercury in Food   |
| AOAC 2015.01 (22 <sup>nd</sup> Edition) | Arsenic (Total)  |
| AOAC 2015.01(22 <sup>nd</sup> Edition)  | Determination of heavy metals (Cadmium, Copper, Zinc, Iron Lead, Manganesem, Mercury & Nickel) in food                                     |
| Miscellaneous Analysis                  | s in food  |
| AOAC 916.01 (22 <sup>nd</sup> Edition)  | Microscopic examination of Adulterant in Spices  |
| AOAC 942.15 (22 <sup>nd</sup> Edition)  | Determination of Total Acidity of Fruit products   |
| AOAC 975.48 (22 <sup>nd</sup> Edition)  | Microscopic examination of Light and heavy filth in Spices and condiment   |
| AOAC 981.12 (22 <sup>nd</sup> Edition)  | Determination of pH of acidified foods   |
| ISO 2448:1998                           | , Determination of ethanol content in Fruit and vegetable products   |
| Mycotoxins Analysis                     |  |
| AOAC 991.31 (22 <sup>nd</sup>           | Determination of Aflatoxin B1, B2, G1, G2  |
| Edition)                                | Determination of Total Aflatoxin (B1, B2, G1 & G2) Quantitative  |
| PHL/004PR075                            | Determination Total Aflatoxin (B1, B2, G1 & G2) by Method from Romer Labs, AgraStrip ® Total Aflatoxin Qualitative Tests (10 ppb cut off). |
| Proximate Composition                   | Analysis In food   |
| AOAC 920.100(22 <sup>nd</sup>           | Water Soluble Ash  |
| Edition)                                | Acid Insoluble Ash   |
| AOAC 920.104 (22 <sup>nd</sup> Edition) | Determination of Water Extract of Tea  |
| AOAC 920.159 (22 <sup>nd</sup> Edition) | Determination of Iodine Value of Oils and Fats   |
| AOAC 920.160 (22 <sup>nd</sup> Edition) | Determination of Saponification Value of Oils and Fats   |
| AOAC 925.45 (22 <sup>nd</sup> Edition)  | Determination of total solids in tea   |



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| AOAC 930.38 (22nd Edition)  | Determination of Synthetic Organic color additives (Artificial Colour of Saffron) in food by Thin Layer Chromatography |
|---|--|
| AOAC 940.28 (22 <sup>nd</sup> Edition)  | Determination of Free Fatty Acids Value in Crude and refined Oils  |
| AOAC 941.12 (22 <sup>nd</sup> Edition)  | Determination of Ash in Spices   |
| AOAC 941.11 (22 <sup>nd</sup> Edition)  | Determination of Moisture in Spices  |
| AOAC 965.33 (22 <sup>nd</sup> Edition)  | Determination of Peroxide Value of Oils and Fats   |
| AOAC 969.17(22 <sup>nd</sup> Edition)   | Determination of Acid value of butterfat.  |
| AOAC 969.33 (22 <sup>nd</sup> Edition)  | Determination of Fatty Acids Profile in Oil  |
| AOAC 975.11(22 <sup>nd</sup> Edition)   | Determination of Alkalinity of the Water- Soluble Ash  |
| AOAC 981.12(22nd<br>Edition)  | Determination of pH in acidified foods   |
| GSO 16:1984   | Determination of Acid value of edible vegetable oils and fats.   |
| ISO 3632-2:2010<br>ISO 3632-1:2011  | Determination of Coloring Power  |
| ISO 3632-2:2010<br>ISO 3632-1:2011  | Diphenylamine Test   |
| ISO 3632-1:2011   | Microscopic Examination of Saffron (Crocus Sativus L.)   |
| Water Analysis  |  |
| AOAC 974.27 (22 <sup>nd</sup> Edition)<br>AOAC 993.14 (22 <sup>nd</sup><br>Edition) | Determination of Cadmium in waters and wastewaters   |
| AOAC 993.30 (22nd<br>Edition)   | Determination of Chloride in water (Ion chromatographic method)  |
| AOAC 993.14 (22 <sup>nd</sup> Edition)<br>AOAC 974.27 (22 <sup>nd</sup> Edition)    | Determination of Copper, Lead, Mercury, Nickel, Zinc, Arsenic & Iron in waters and wastewaters                         |
| AOAC 993.30 (22 <sup>nd</sup><br>Edition)   | Determination of Fluoride  |



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| ASTM D4327<br>AOAC 993.30 (22 <sup>nd</sup><br>Edition)                          | Determination of Fluoride, chloride, nitrate, phosphate in water by Ion chromatographic method                           |
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| ASTM D6581<br>AOAC 993.30 (22 <sup>nd</sup><br>Edition)                          | Determination of Bromate, bromide in water by Ion chromatographic method   |
| EPA Method 330.5   | Determination of Chlorine Residual   |
| ISO 7888:1985  | Determination of electrical conductivity   |
| ISO 10523:2008<br>AOAC 973.41 (22nd<br>Edition)                                  | Determination of pH of water   |
| ISO 13.060.60  | Colour   |
| ISO 13.060.01  | Floating Material  |
|  | Odour  |
|  | Sediment   |
|  | Suspended Solids   |
|  | Total Dissolved Solids   |
|  | Turbidity  |
| ISO 14911:1998<br>ASTM D6919   | Determination of dissolved Lithium, Sodium, Ammonium, Potassium Magnesium & Calcium in water and wastewater              |
| Analysis of Honey  |  |
| AOAC 962.19 (22nd Edition)   | Determination of Free Acid (Formic Acid) of honey  |
| AOAC 969.38 (22nd Edition)   | Determination of % water in honey  |
| AOAC 977.20 (22nd Edition)   | Separation of Sugars (Maltose, Sucrose, Glucose, Fructose<br>Fructose/Glucose) in Honey by Liquid Chromatographic method |
| AOAC 980.23 (22 <sup>nd</sup> Edition)   | Determination of Hydroxymethylfurfural in Honey  |
| Pesticides in Food and V   | Vater  |
| AOAC 970.52 (22 <sup>nd</sup> Edition)<br>AOAC 991.06 (22 <sup>nd</sup> Edition) | Acetamiprid Acetamprid Azoxystrobin Carbaryl Carbendazim   |





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AOAC 991.07 (22<sup>nd</sup> Edition)

Carbofuran

Chlorantraniliprole

Clothiandin

Clothianidin

Difenoconazole

Dimethomorph

Epoxiconazole

. Fenazaquin

Fenhexamid

Fenobucarb

Fenpyroxima

Fenpyroximat

Flusilazole

Hexaconazole

Hexaconzole

Hexythiazox

Hxaconazole

Imidacloprid

Indoxacarb

Indoxacard

Isoprocarb

kresoxim-methyl

Metalaxyl

Methiocarb

Methomyl

Methoxyfenozide

Myclobutanil

Myclobutaniol

Oxamyl

Penconazole

Picoxystrobin

Promecarb

Propargite

Propiconazole

Propoxur

Pyraclostrobin

Pyridaben

Pyriproxifen

Spinosad

Spinosad A

Spinosad D

Spiromesifen

Spiroxamine

Tebuconazole

Thiacloprid

Thiamethoxam

Thiophanate-methyl

Tricyclazole

AOAC 970.52 (22<sup>nd</sup> Edi-

tion)

Tridimenol Trifloxystrobin



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| AOAC 991.06 (22 <sup>nd</sup> Edition)<br>AOAC 991.07 (22 <sup>nd</sup> Edition)<br>(cont'd.) |  |
|---|--|
| Tobacco Analysis  |  |
| CORESTA Recommended<br>Method (CRM) 4<br>ISO 6565   | Determination of Pressure Drop of Cigarettes and Filter Rods   |
| CORESTA Recommended<br>Method (CRM) 5   | Determination of filter ventilation of Cigarettes  |
| CORESTA Recommended<br>Method (CRM) 55  | Determination of Carbon monoxide content (mg/Cig)  |
| CORESTA Recommended<br>Method (CRM) 62<br>ISO 3402:1999<br>ISO 8243:2013                      | Determination of Nicotine content of Tobacco and Tobacco Products by Gas<br>Chromatographic Analysis     |
| GSO 950:2014  | Determination of nicotine with chemical methods  |
| ISO 2971:2013   | Circumference Size (mm) of Cigarettes and filter rods by using a non-contact optical measuring apparatus |
| ISO 4387:2000<br>ISO 3308:2000<br>ISO 3402:1999   | Determination of Puff Counts (Mg/Cig) of Cigarette   |
| ISO 4387:2000<br>ISO 3308:2000<br>ISO 3402:1999   | Determination of Total Particular Matter (TPM) of Cigarettes using a routine analytical smoking machine  |
| ISO 13276:2020<br>ISO 3402:1999<br>ISO 8243:2013  | Determination of nicotine purity Gravimetric method using tungstosilicic acid                            |
| Radionuclides   |  |
| AOAC 933.09 (22 <sup>nd</sup> Edition)  | Determination of Alpha nuclides  |
| AOAC 933.09 (22 <sup>nd</sup> Edition)  | Determination of beta nuclides   |
| AOAC 933.09 (22 <sup>nd</sup><br>Edition)   | Determination of Gamma nuclides  |

