

TESTING AND CALIBRATION LABORATORY ACCREDITATION PROGRAM (LAP)

Scope of Accreditation

Legal Name of Accredited Laboratory: **Canadian Food Inspection Agency**

Location Name or Operating as (if applicable): Dartmouth Laboratory

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SCC File Number:	15582
Accreditation Standard(s):	ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories
Fields of Testing:	Biological Chemical/Physical
Program Specialty Area:	Agriculture Inputs, Food, Animal Health and Plant Protection (AFAP) Test Method Development and Evaluation and Non-routine Testing (TMDNRT)
Initial Accreditation:	2002-07-24
Most Recent Accreditation:	2022-09-12
Accreditation Valid to:	2026-07-24

Remarque: La présente portée d'accréditation existe également en français, sous la forme d'un document distinct.

Note: This scope of accreditation is also available in French as a separately issued document.

ANIMAL AND PLANTS (AGRICULTURE)

Agricultural products (except food and chemicals):

Test Method Development & Evaluation and Non-Routine Testing

The Dartmouth Chemistry Laboratory is primarily involved in food safety issues with a focus on veterinary drug residues in fish products, shellfish toxins, and toxic elements in food and fish products. The laboratory is accredited for the following activities in test method development and non-routine testing:

Chemical Analysis

1. Development and validation of new testing methods for the screening and quantification of veterinary drug residues in fish products, toxins in food, shellfish and fish, and toxic elements and other contaminants in food and fish products.
2. Modification, adaptation, improvement, and validation of existing testing methods for the screening and quantification of veterinary drug residues in fish products, toxins in food, shellfish and fish , and toxic elements and other contaminants in food and fish products.
3. Development of instrumental techniques for screening and quantifying veterinary drug residues in fish products, toxins in food, shellfish and fish, and toxic elements and other contaminants in food and fish products.

Techniques:

HPLC, LC-MSMS, ICP-MS, LC-ICP-MS, GC-MS, and CVAAS.

Microbiology and Molecular Biology Analysis

1. Development and validation of analytical methods for detection, isolation, identification and characterization of microorganisms in food, water and environmental samples.
2. Development, evaluation and validation of new test kits including commercial test kits for the detection and/or enumeration of microorganisms in food, water and environmental samples.
3. Modification, improvement and validation of published or existing methods for detection and/or enumeration of microorganisms in food, water and environmental samples.
4. Development, modification and validation of methodology for molecular identification of fish species.
5. Non-routine testing using the following techniques to meet customer demands.

Techniques:

1. Direct plating, filtration and MPN methods for enumerating microorganisms

2. Biochemical and cultural identification of microorganisms
3. Polymerase chain reaction (PCR)
4. DNA Sequencing
5. DNA Barcoding

The laboratory is accredited for the following routine test methods:

(Chemical Examinations of Foods for Human Consumption Including Fish and Fish Products)

SOM-DAR-CHE-001	Determination of Domoic Acid in Shellfish by LC-UV and LC-MS/MS For: DA In: Molluscs, live, frozen, or processed
SOM-DAR-CHE-002	Determination of Lipophilic Shellfish Toxins in Shellfish by LC-MS/MS For: Okadaic acid group: OA, DTX1, DTX2, OA esters, DTX1 esters, DTX2 esters, 14,15-dihydroDTX1, Pectenotoxin group: PTX1, PTX2, PTX3, PTX4, PTX6, PTX11, Azaspiracid group: AZA1, AZA2, AZA3, Yessotoxin group: YTX, homoYTX, 45-OH YTX, 45-OH homoYTX, Cyclic imine group: GYM, SPX1, SPX-C, 20-ME SPX-G, PnTX-A, PnYX-E, PnTX-F, PnTX-G, and PnTX-G esters In: Molluscs, live, frozen, or processed
SOM-DAR-CHE-028	Determination of Tetracyclines in Fish and Shellfish Products by LC-MS/MS For: OTC, TC, CTC, and DOXY In: Aquacultured fish and shellfish
SOM-DAR-CHE-036	Determination of Metals in a Variety of Foods by ICP-MS For: Li, Be, B, Mg, Al, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Mo, Cd, Sn, Sb, Hg, Tl, Pb, U In: All foods and fish
SOM-DAR-CHE-038	Determination of Nitrofurans Metabolites in Fish and Shellfish Products by LC-MS/MS For: AOZ, AHD, SEM, and AMOZ In: Aquacultured fish and shellfish products
SOM-DAR-CHE-039	Determination of Triphenylmethane Dyes in Fish and Shellfish Products by LC-MS/MS For: Malachite green, leucomalachite green, crystal violet and leucocrystal violet In: Aquacultured fish and shellfish products

SOM-DAR-CHE-041	Determination of Aflatoxin M-1 in Milk by LC-FLD For: Aflatoxin M-1 In: Bovine milk and dried milk powders
SOM-DAR-CHE-050	Determination of Fluoroquinolones and Quinolones in Fish and Shellfish Products by LC-MS/MS For: CIPRO, DANO, ENRO, SARA, MARBO, DIFLOX, NOR, ORBI, OXO, FLMQ, and NAL In: Aquacultured fish and shellfish products
SOM-DAR-CHE-051	Determination of Erythromycin in Fish and Shellfish Products by LC-MS/MS For: ERY In: Aquacultured fish and shellfish products
SOM-DAR-CHE-052	Determination of Paralytic Shellfish Toxins in Shellfish by LC-FLD with Post-column Oxidation (PCOX) For: GTX1, GTX2, GTX3, GTX4, GTX5, dcGTX2, dcGTX3, NEO, STX, dcSTX, C1, and C2 In: Molluscs, live, frozen, or processed
SOM-DAR-CHE-053	Determination of Speciated Arsenic Compounds in Foods by LC-ICP/MS For: Arsenic acid, arsenious acid, arsenobetaine, arsenocholine, monomethyl arsenic acid and cacodylic acid In: All foods and fish
SOM-DAR-CHE-054	Determination of Formaldehyde in Maple Syrup by Spectrofluorimetry For: Formaldehyde In: Maple syrup
SOM-DAR-CHE-057	Determination of Nitroimidazoles in Fish and Shellfish Products by LC-MS/MS For: HMMNI, IPZ, IPZ-OH, MNZ, MNZ-OH, RNZ and DMZ In: Aquacultured fish and shellfish
SOM-DAR-CHE-060	Determination of Total Volatile Base Nitrogen in Fish and Fish Products by Distillation/Titration For: TVBN In: Fish and fish products
SOM-DAR-CHE-061	Determination of Carbapenems in Fish and Shellfish Products by LC-MS/MS For: BIA, MERO, DORI and ERTA In: Aquacultured fish and shellfish

SOM-DAR-CHE-062	<p>Determination of Multiple Veterinary Drug Residues in Fish and Shellfish Products by LC-MS/MS</p> <p>For:</p> <p>(Fluoro)quinolones: CIPRO, DANO, ENRO, SARA, MARBO, ORBI, DIFLOX, NOR, OXO, NLDX, FLMQ</p> <p>Triphenylmethane Dyes: LMG, MG, CV, LCV, BG.</p> <p>Sulfonamides: SAA, SCP, SDM, SDZ, SDX, SGD, SMZL, SMM, SMP, SMR, SMZ SMX, SPY, SQX, STZ, SXL, SIX, SNL, TMP</p> <p>Tetracyclines: OTC, TC, CTC, DOXY</p> <p>Nitroimidazoles: MNZ, DMZ, RNZ, MNZ-OH, IPZ-OH, HMMNI, IPZ</p> <p>Steroids: MT, NAN, EPINAN, BOLD, epiBOLD</p> <p>Stilbenes: DES, DIEN, HEX</p> <p>Amphenicols: CAP, TAP, FLR, FLRA.</p> <p>In: Aquacultured fish and shellfish</p>
SOM-DAR-CHE-063	<p>Determination of Insecticides in Fish by LC-MS/MS</p> <p>For:</p> <p>Pyrethroids: CYP, DELT</p> <p>Avermectins: EMA, IVR</p> <p>Benzoylureas: TEF, LUF</p> <p>In: Aquacultured fish</p>

(Microbiological and Molecular Examinations of Foods for Human Consumption Including Fish and Fish Products)

FDA-BAM-Chapter 9	<i>Vibrio parahaemolyticus</i> Enrichment, isolation and enumeration, Other <i>Vibrios</i> , Section A, MPN Method
CFIAFMWG-001	Enumeration of <i>Escherichia coli</i> using Compact Dry EC Medium Count Plates
MFHPB-03	Determination of the pH of foods including foods in hermetically sealed containers
MFHPB-10	Isolation of <i>Escherichia coli</i> O157:H7/NM from foods and environmental surface samples
MFHPB-19	Enumeration of Coliforms, Faecal Coliforms and of <i>E. coli</i> in Foods using the MPN Method
MFHPB-20	Isolation and Identification of <i>Salmonella</i> from Food and Environmental Samples
MFHPB-21	Enumeration of <i>Staphylococcus aureus</i> in Foods
MFHPB-27	Enumeration of <i>Escherichia coli</i> in Foods by the Direct Plating (DP) Method
MFHPB-30	Isolation of <i>Listeria monocytogenes</i> and other <i>Listera spp.</i> from all Foods and Environmental Samples
MFHPB-33	Enumeration of Total Aerobic Bacteria in Food products and Food ingredients using 3M™ Petrifilm™ Aerobic Count Plates
MFHPB-34	Enumeration of <i>E. coli</i> and Coliforms in Food Products and Food Ingredients using 3M™ Petrifilm™ <i>E. coli</i> Count Plates

MFLP-102	Identification of <i>Vibrio parahaemolyticus</i> colonies by real-time polymerase chain reaction (qPCR)
MFLP-15	The Detection of <i>Listeria</i> Species from Environmental Surfaces Using the Dupont Qualicon BAX® System Method and Direct Plating excluding collection of samples
MFLP-22	Characterization of Verotoxigenic <i>Escherichia coli</i> O157:H7 Colonies by Polymerase Chain Reaction (PCR) and Cloth-based Hybridization Array System (CHAS)
MFLP-28	The Qualicon Bax® System Method for the Detection of <i>Listeria Monocytogenes</i> in a Variety of Food
MFLP-29	The Qualicon Bax® System Method for the Detection of <i>Salmonella</i> in a variety of Food and Environmental Samples
MFLP-30	Detection of <i>Escherichia coli</i> O157:H7 in Select Foods using the BAX® System <i>E. coli</i> O157:H7 MP
MFLP-52	Isolation and Identification of priority Verotoxigenic <i>Escherichia coli</i> (VTEC) in foods
MFLP-53	Identification of <i>Listeria monocytogenes</i> colonies by polymerase chain reaction (PCR) and cloth-based hybridization array system (CHAS)
MFLP-66	Determination of Water Activity Using the Decagon Aqualab
MFLP-74	Enumeration of <i>Listeria monocytogenes</i> in Foods
MFLP-77	Detection of <i>Listeria monocytogenes</i> and other <i>Listeria</i> spp. in food products and environmental samples by the VIDAS® <i>Listeria</i> species Xpress (LSX) method
SOM-DAR-MIC-016	DNA Barcoding Generation for use in Fish Species Identification In: Fish tissue including fresh, frozen, salted, or dried

Number of Scope Listings: 40 plus 11 TMDNRT techniques

Notes:

ISO/IEC 17025: General Requirements for the Competence of Testing and Calibration Laboratories

SOM-DAR-CHE: Dartmouth Laboratory - Chemistry Section Method

SOM-DAR-MIC: Dartmouth Laboratory - Microbiology Section Method

MFHPB: Microbiological Analysis of Foods Health Products and Food Branch, Health Canada Compendium of Analytical Methods

MFLP: Microbiological Analysis of Foods Lab Procedures, Health Canada Compendium of Analytical Methods

CFIAFMWG: Canadian Food Inspection Agency, Food Microbiology Working Group

FDA-BAM: United States Food and Drug Administration, Bacteriological Analysis Manual

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at www.scc.ca.

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Publication on: 2022-09-13