



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005 and AOAC FOOD LABORATORY Requirements

Molecular Epidemiology, Inc. (MEI) dba IEH Laboratories and Consulting Group

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TESTING

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Certificate Number: AT – 1516

I. Microbiological 3

Table with 4 columns: ITEMS, MATERIALS OR PRODUCTS TESTED; SPECIFIC TESTS OR PROPERTIES MEASURED; SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED; \*KEY EQUIPMENT OR TECHNOLOGY. Rows include tests for Food Products, Pharmaceuticals, and Environmental Samples, such as Food Analytical Prep, E. coli O157, Total Coliform, Aerobic Plate Count, IEH- E. coli -MPN, and Detection of Salmonella.



| ITEMS, MATERIALS OR PRODUCTS TESTED                   | SPECIFIC TESTS OR PROPERTIES MEASURED                                    | SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED   | *KEY EQUIPMENT OR TECHNOLOGY      |
|---|--|--|-----------------------------------|
| Food Products, Pharmaceuticals, Environmental Samples | Detection of <i>E. coli</i> O157 / EHEC / STEC and <i>Salmonella</i> sp. | MB217<br>IEH <i>E. coli</i> O157, Stx-producing <i>E. coli</i> (STEC/EHEC) with Intimin and <i>Salmonella</i> Test System (AOAC-RI PTM 100701) | Multiplex PCR System              |
| Food Products, Pharmaceuticals, Environmental Samples | Detection of EHEC / STEC   | MB217- MEI/IEH Stx-producing <i>E. coli</i> (STEC/EHEC) with Intimin (AOAC-RI PTM 100701)  | Multiplex PCR System              |
| Food Products, Pharmaceuticals, Environmental Samples | Detection of <i>Salmonella</i> sp.                                       | MB217 MEI/IEH <i>Salmonella</i> Test System (AOAC-RI PTM 100701)   | Multiplex PCR System              |
| Food Products, Pharmaceuticals, Environmental Samples | Detection of <i>Shigella</i> sp.   | MB222<br>Detection of <i>Shigella</i> sp. in Food and Environmental Samples by Multiplex PCR   | Multiplex PCR System              |
| Food Products, Pharmaceuticals, Environmental Samples | Lactic Acid Bacteria Count   | MB231<br>Compendium of Methods for the Microbiological Examination of Food Products 4 <sup>th</sup> ed.  | Pour Plate                        |
| Food Products, Pharmaceuticals, Environmental Samples | Detection of <i>Salmonella</i> sp.                                       | MB315-MEI<br>Detection of <i>Salmonella</i> sp. in Food and Environmental Samples by Multiplex PCR (AOAC-RI PTM 100701)                        | Multiplex PCR System              |
| Food Products, Pharmaceuticals, Environmental Samples | Detection of <i>Listeria</i> sp and <i>L. monocytogenes</i>              | MB316-MEI<br>Detection of <i>Listeria</i> sp. and <i>L. monocytogenes</i> by Multiplex Method  | Multiplex PCR System              |
| Food Products, Pharmaceuticals, Environmental Samples | Lactic Acid Bacteria Count   | MB343-MEI<br>Lactic Acid Bacteria Count Petrifilm  | Petrifilm<br>Anaerobic incubation |
| Food Products, Pharmaceuticals, Environmental Samples | Bacterial Sub-typing by MRF  | MB431-MEI<br>Bacterial Subtyping by Micro Restriction Fingerprinting (MRF)   | Micro Restriction Fingerprinting  |
| Food Products, Pharmaceuticals, Environmental Samples | Detection and Enumeration of <i>Staphylococcus aureus</i>                | MB443<br>Detection and Enumeration of <i>Staphylococcus aureus</i> Petrifilm (AOAC 2003.07, 2003.08, 2003.11)                                  | Petrifilm                         |



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|---|--|---|-------------------------------------|
| Food Products, Pharmaceuticals, Environmental Samples | Enterobacteriaceae Plate Count                           | MB444-MEI<br>Enumeration of Enterobacteriaceae - Petrifilm (AOAC 2003.01)           | Petrifilm                           |
| Food Products, Pharmaceuticals, Environmental Samples | Identification of Microorganisms by DNA Sequencing       | MB450-MEI<br>Identification of Microorganisms by DNA Sequencing                     | DNA Sequencing                      |
| Food Products, Pharmaceuticals, Environmental Samples | Bacterial Sub-typing by Pulsed Field Gel Electrophoresis | MB454-MEI<br>Bacterial Sub-typing by Pulsed Field Gel Electrophoresis               | Pulsed Field Gel Electrophoresis    |
| Food Products, Pharmaceuticals, Environmental Samples | Microscopic Analysis of Microorganisms                   | MB457-MEI<br>Microscopic Analysis of Microorganisms                                 | Light Microscope                    |
| Food Products, Pharmaceuticals, Environmental Samples | Phenotypic Analysis of Microorganisms                    | MB473-MEI<br>Phenotypic Analysis of Microorganisms                                  | IEH Method<br>VITEK Analyzer        |
| Food Products, Pharmaceuticals, Environmental Samples | Process Control Index (PCI) Testing                      | MB491<br>Process Control Index (PCI) Testing  | Multiplex PCR System                |
| Food Products, Pharmaceuticals, Environmental Samples | Yeast & Mold Count                                       | MB492-MEI<br>Yeast & Mold Count - Petrifilm (AOAC 997.02)                           | Petrifilm                           |
| Food Products, Pharmaceuticals, Environmental Samples | <i>Bacillus cereus</i> Group Toxins                      | MB505-MEI<br>Detection of <i>Bacillus cereus</i> Group Toxins by PCR                | Multiplex PCR System                |
| Food Products, Pharmaceuticals, Environmental Samples | IEH-APC-MPN (12 hours)                                   | MB704<br>Enumeration of Aerobic Bacteria by IEH-MPN Method (IEH-APC-MPN, 12 hours ) | IEH Method                          |



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|---|--|---|------------------------------|
| Food Products, Pharmaceuticals, Environmental Samples | IEH-ACE-MPN (24 hours)   | MB705<br>Enumeration of Aerobic Bacteria, Total Coliforms and Generic <i>Escherichia coli</i> by IEH-MPN Method (IEH-ACE-MPN, 24 hrs )              | IEH Method                   |
| Food Products, Pharmaceuticals, Environmental Samples | <i>Salmonella</i> sp.  | MB921<br>BAX System PCR Assay <i>Salmonella</i> USDA MLG 4 (AOAC 992.11)  | BAX Method                   |
| Food Products, Pharmaceuticals, Environmental Samples | <i>E. coli</i> O157:H7   | MB922<br>BAX System PCR Assay <i>E. coli</i> O157:H7 MP USDA MLG 5  | BAX Method                   |
| Food Products, Pharmaceuticals, Environmental Samples | 3-Tube MPN and 5-Tube MPN Coliform / FC / generic <i>E. coli</i> | MB923<br>Multiple Tube Fermentation Method FDA BAM, 8 <sup>th</sup> ed. (SM9221)  | Multiple Tube Fermentation   |
| Food Products, Pharmaceuticals, Environmental Samples | Total Coliforms / Fecal Coliforms / <i>E. coli</i>               | MB923 Examination of Water and Wastewater for Total Coliforms, Fecal Coliforms and <i>E. coli</i> (SM 9221)   | Multiple Tube Fermentation   |
| Food Products, Pharmaceuticals, Environmental Samples | Total Coliforms / <i>E. coli</i>                                 | MB928<br>Detection and Enumeration of Both Total Coliforms (TC) and <i>Escherichia coli</i> ( <i>E. coli</i> ) by Membrane Filtration USEPA 1604    | Membrane Filtration          |
| Food Products, Pharmaceuticals, Environmental Samples | Pathogenic <i>E. coli</i>  | MB929<br>Isolation and Identification of Pathogenic <i>E. coli</i> (BAM: Diarrheagenic <i>E. coli</i> Bacteriological Analytical Manual Chapter 4a) | FDA BAM Method               |
| Food Products   | Gluten   | MB538<br>Detection of gliadin (gluten) by ELISA   | ELISA system                 |
| Food Products   | Various  | MB539<br>Detection of Allergen Residue by ELISA   | ELISA system                 |
| Food Products   | Sesame protein   | MB540<br>Detection of Sesame seed protein Residue by ELISA  | ELISA system                 |

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| Plant/Food Material, Animal Tissue, Bacterial Cells   | Nucleic acids   | MB541<br>Nucleic acid extraction procedure                         | Enzymatic Digestion          |
| Plant/Food material   | <b>GMO Detection Screening elements:</b><br>P35S, NOS, FMV;<br><b>Corn:</b> T25, CBH351, MON810, GA21, Bt176, Bt11, NK603,TC1507, Mon863, DAS 59122, MIR 604, Event 3272, MON 88017, MON 89034, MIR 162;<br><b>Soy:</b> A2704-12, A5547-127, GTS 40-3-2, FG72, MON 87701, MON 89788, DP305426, DP356043,<br><b>Cotton:</b> 3006-213, Event 1, COT67B, GHB614, LL cotton25, MON 15985, MON 1445;<br><b>Potato:</b> 1210amk, EH92-527-1;<br><b>Sugarbeets:</b> H7-1 | MB544<br>Detection and Identification of GM crops by Multiplex PCR | Multiplex PCR                |
| Beef Blood Meal, Cat Food, Dog Food, Feather Meal, Fish Meal, Pet Treats, Pork Blood Meal, Pork Meat & Bone Meal, Poultry Meal, Turkey Meal | Ruminant material   | RE121.02<br>Reveal Procedure for Ruminant in MBM                   | Immunoassay                  |

**Notes:**

1. \* = As Applicable
2. This scope is part of and must be included with the Certificate of Accreditation No. AT- 1516
3. Microbial testing is performed in compliance with the AOAC International Accreditation Guidelines for Laboratories Performing Microbiological and Chemical Analyses of Foods, Feeds, and Pharmaceutical Testing and in compliance with US FDA cGMP requirements as specified in 21CFR Parts 210 and 211.



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Vice President

