



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Murray Brown Laboratories
4150 Jason Street, Denver, CO 80211

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Biological & Chemical Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

July 3, 2012

Issue Date:

July 3, 2018

Expiration Date:

August 31, 2020

Accreditation No.:

72716

Certificate No.:

L18-316

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjilabs.com



Certificate of Accreditation: Supplement

Murray Brown Laboratories

4150 Jason Street, Denver, CO 80211

Contact Name: John Murray Phone: 303-296-0264

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Biological	Food, Nutritional, Supplements, Aqueous, Environmental Samples	E. coli O157:H7 ^F	AOAC RI 031002 BAX® PCR	Qualitative Analysis
			AOAC RI 061505 GENE-UP® PCR	
		Salmonella spp. ^F	AOAC RI 081201 BAX® PCR	Detection Limit (D.L.) is 1 viable cell per sample aliquot enriched.
			AOAC OM 2013.02 BAX® PCR	
			AOAC RI 061504 GENE-UP® PCR	
		Shiga Toxin-producing Escherichia coli (STEC) (E. coli O26, E. coli O45, E. coli O103, E. coli O111, E.coli O121, E. coli O145) ^F	AOAC RI 091301 BAX® PCR	Results are either Positive/Negative
		Listeria spp. ^F	AOAC RI 081401 BAX® PCR	
			AOAC RI 051603 GENE-UP® PCR	
		Listeria monocytogenes ^F	AOAC RI 121402 BAX® PCR	
			AOAC RI 121602 GENE-UP® PCR	
		Aerobic Plate Count ^F	AOAC OM 990.12 Petrifilm™	Quantitative Analyses
			AOAC RI 121204 TEMPO®	
		Bacillus cereus ^F	AOAC RI 071401 TEMPO®	Liquids: D.L. = 1 CFU/mL
		Coliform Bacteria ^F	AOAC OM 991.14 Petrifilm™	
			AOAC OM 998.08 Petrifilm™	
		Escherichia coli ^F	AOAC RI 060702 TEMPO®	Solids: D.L. = 10 CFU/g
			AOAC OM 991.14 Petrifilm™	
			AOAC OM 998.08 Petrifilm™	
		Enterobacteriaceae ^F	AOAC RI 080603 TEMPO®	Swabs: D.L. = 10 CFU/swab
AOAC OM 2003.01 Petrifilm™				
Lactic Acid Bacteria ^F	AOAC RI 050801 TEMPO®			
	AOAC RI 041701 Petrifilm™			
	SOP 022 TEMPO®			
Staphylococcus aureus ^F	AOAC OM 2003.07 Petrifilm™			
	AOAC OM 2003.11 Petrifilm™			
	AOAC RI 120901 TEMPO®			
Yeast and Mold ^F	AOAC RI 121301 Petrifilm™			
	AOAC RI 041001 TEMPO®			



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Chemical	Food, Nutritional, Supplements, Aqueous, Environmental Samples	Ash ^F	Muffle Furnace [SOP-024] REF: AOAC OM 923.03 AOAC OM 920.153	0.1 % w/w to 100 % w/w
		Cannabinoids ^F	HPLC [SOP-030]	0.001 % w/w to 100 % w/w
		Fat, Crude ^F	Soxtec™ [SOP-015] REF: AOAC 991.36	0.5 % w/w to 100 % w/w
		Fat, Total ^F	Acid Hydrolysis [SOP-032] REF: AOAC OM 992.06 AOAC OM 935.38	1.0 % w/w to 100 % w/w
		Fatty Acid Profile ^F	GC-FID [SOP-038] REF: AOAC OM 996.01 AOAC OM 996.06	0.01 % w/w to 100 % w/w
		Free Fatty Acid ^F	Titration [SOP-027] REF: AOAC OM 940.25	0.35 mg KOH/g to 20 mg KOH/g
		Minerals ^F : Ca, Cu, Fe, Mg, Mn, P, K, Na, Zn	ICP-MS [SOP-033] REF: AOAC OM 2015.01 AOAC OM 2015.06	0.80 ppm to 500 000 ppm
		Metals ^F : As, Cd, Pb, Hg	USP 232, USP 233	0.005 ppm to 50 000 ppm
		Moisture, Total ^F	Convection Oven [SOP-018] REF: AOAC 950.46	0.1 % to 100 %
		pH ^{FO}	Meter [SOP-014] REF: AOAC OM 973.41 AOAC OM 981.12 USDA/FSIS MGL Ch. 2 APHA SMEDP 15.022	0 pH to 14 pH
		Protein, Total ^F	Combustion Method [SOP-020] REF: AOAC OM 992.15	0.25 % to 100 %
		Salt ^F	Titration [SOP-025] REF: AOAC 935.47	0.1 % to 100 %
		Specific Gravity ^F	Density Meter [SOP-034] REF: ASTM D4062	0.2 to 2.0
		Sugars ^F	HPLC [SOP-031] REF: AOAC OM 984.17	0.5 % to 100 %
		TTPCs ^F	Titration [SOP-035]	0.2 % to 100 %
Water Activity ^F	AquaLab Meter [SOP-019] REF: AOAC OM 978.18	0.030 a _w to 1.000 a _w		

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Total Fat ^F would mean that the laboratory performs this testing at its fixed location.
2. The presence of a superscript FO means that the laboratory performs testing of the indicated parameter both at its fixed location and onsite at customer locations. Example: pH ^{FO} would mean that the laboratory performs this testing at its fixed location and onsite at customer locations.