



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CHEMICAL

Valid to: January 31, 2025

Certificate Number: 4873.04

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on food, food products, feeds, food additives, beverages, cannabis, cannabis products, and environmental samples:

<b><u>Test</u></b>	<b><u>Internal Method/Reference Method</u></b>
Cannabinoid Analysis in Cannabis and Its Derived Products by HPLC	<sup>1</sup> PAT-AM-019 (Modified Agilent 5991-9285EN)
Cholesterol Analysis by Gas Chromatography	PAT-AM-027
Determination of Ash by Muffle Furnace	PAT-AM-013 (USP <561>; 2020-06-17)
Determination of Melatonin by HPLC-UV	PAT-AM-007
Determination of pH by Potentiometric Method	PAT-AM-017 (USP <791>; 2012-05-01)
Determination of Total Dietary Fiber	PAT-AM-032 (Mega Zyme Total Dietary fiber assay procedure K-TDFR-100A/K-TDFR-200A 04/17.)
Determination of Total Protein by Kjeldahl Method	PAT-AM-030 (Modified AOAC 955.04)
Determination of Water Activity by Aqualab TDL	PAT-AM-025
Elemental Analysis By ICP-MS	<sup>1</sup> PAT-AM-020 (USP 233 Modified)
Enzyme-Linked Immunosorbent Assay (ELISA) for Quantitative Analysis of Allergen Protein	PAT-AM-014
Essential Oils Analysis by Gas Chromatography	PAT-AM-012
Fat and Fatty Acid Profile Analysis in Food	PAT-AM-028 (AOAC 996.06 Modified)

<b><u>Test</u></b>	<b><u>Internal Method/Reference Method</u></b>
Fat and Fixed oils	PAT-AM-029 (USP <401>)
Foreign Material	PAT-AM-026 (modified USP <561> and EP 2.8.2)
Loss of Drying (LOD) by Forced Air Oven Method	PAT-AM-023 (USP <731>; 2012-05-01)
<b>Nutritional Analysis in Food</b>	
Organoleptic Evaluation	PAT-AM-015
Pesticides And Mycotoxin Analysis in Cannabis & Cannabis Products	<sup>1</sup> PAT-AM-024
Quantitative analysis of Mycotoxins by LC-MS/MS	<sup>1</sup> PAT-AM-034 (Modified AOAC 2007.01)
Quantitative analysis of Pesticides by LC-MS/MS and GC-MS/MS	<sup>1</sup> PAT-AM-033 (Modified AOAC 2007.01)
Residual Solvents Analysis by Gas Chromatography	<sup>1</sup> PAT-AM-021 (USP<467> Modified)
Sugar Profile and Sugar Alcohol Analysis by Liquid Chromatography	PAT-AM-008
Terpenes Profile by Gas Chromatography	<sup>1</sup> PAT-AM-022 (Modified Agilent 5991-8499EN)
Total Calories and Carbohydrates by Calculation	PAT-AM-031 (CFIA Nutritional labelling guidance 2018-05-11, FDA 21 CFR, Part 101.9 Nutrition labeling of food, pp 24-25)
Vitamin Analysis by High-Performance Liquid Chromatography	<sup>1</sup> PAT-AM-010

<sup>1</sup>List of analytes provided under Appendix A.



**Appendix A.**

<b>List of Analytes</b>		
<b>Quantitative Analysis of Pesticides by LC-MS/MS and GC-MS/MS</b>	<b>PAT-AM-033 (Modified AOAC 2007.01)</b>	
2,3,5,6-Tetrachloroaniline	Bromopropylate	Cyazofamid
2-Phenylphenol	Bromuconazole	Cycloate
4,4'-Dichlorobenzophenone	Bupirimate	Cycluron
Acephate	Buprofezin	Cyflufenamid
Acetamiprid	Butocarboxim	Cyfluthrins
Acetochlor	Carbaryl	Cyflufenamid
Acibenzolar-S-methyl	Carbendazim	Cyfluthrins
Acrinathrin	Carbofuran	Cyhalothrin(Lambda)
Alachlor	Carbophenothion	Cymoxanil (Curzate)
Aldicarb	Carboxin	Cypermethrins
Aldrin	Carfentrazone-ethyl	Cyproconazole 1
Allidochlor	Chlorantraniliprole	Cyproconazole 2
Ametoctradin	Chlorbenside	Cyprodinil
Amidosulfuron	Chlordane-cis	Cyromazine
Aminocarb	Chlordane-trans	DCPA(Dacthal,Chlorthal- dimethyl)
Anthraquinone	Chlorfenapyr	DDD-o,p'
Atrazine	Chlorfenson	DDD-p,p'
Azaconazole	Chlorfenvinphos	DDE-o,p'
Azamethiphos	Chlorfenvinphos 1	DDE-p,p'
Azinphos-ethyl (Guthion ethyl)	Chlorfenvinphos 2	DDT-o,p'
Azinphos-methyl (Guthion)	Chloridazon (Pyrazon)	DDT-p,p'
Azoxystrobin	Chlorimuron-ethyl	DEET (Diethyltoluamide)
Beflubutamid	Chlorobenzilate	Deltamethrin
Benalaxyl	Chloroneb	Desmedipham
Benfluralin	Chlorothalonil	DiallateI
Bentazone	Chloroxuron	DiallateII
Benzoximate	Chlorpropham	Diazinon
BHC- alpha(benzenhexachloride)	Chlorpyrifos (Dursban)	Diazinon (Dimpylate)
BHC-beta	Chlorpyrifos-methyl	Dichloran
BHC-delta	Chlorsulfuron	Dichlorvos
BHC- gamma(Lindane,gammaHCH)	Chlorthiophos I	Diclobenil
Bifenazate (D 2341)	Chlorthiophos II	Dieldrin
Bifenthrin	Chlorthiophos III	Diethofencarb
Bispyribac	Chlortoluron (Chlorotoluron)	Difenconazole
Bitertanol	Chlozolinate	Diflubenzuron
Boscalid (Nicobifen)	Cismethrin(Resmethrin- cis)	Diflufenican
Bromfeninfos	Clofentezin	Dimethachlor
Bromfeninfos-methyl	Clomazone	Dimethoate
Dimethomorph(Z)	Clothianidin	Dimethomorph(E)
		Hexazinone

Dimoxystrobin	Coumaphos	Hexythiazox
Diniconazole	Fenthion	Imazalil (Enilconazole)
Dinotefuran	Fenuron (N,N-Dimethyl-N-phenylurea)	Imidacloprid
Dioxacarb	FenvalerateI	Indoxacarb
Diphenamid	FenvalerateII	Iodofenphos
Diphenylamine	Fipronil	Ipconazole
Disulfoton	Flonicamid	Iprodione
Disulfoton (Ethylthiometon)	Fluazifop-butyl	Iprovalicarb
Diuron	Fluazifop-p-butyl	Isazofos
Edifenphos	Flubendiamide	Isodrin
Emamectin B1a	Fluchloralin	Isofenphos methyl
Emamectin B1b	Flucythrinate I	Isopropalin
Endosulfanether	Flucythrinate II	Isoprothiolane
Endosulfansulfate	Fludioxonil	Isoxaben
Endrin	Flufenacet (Fluthiamide)	Isoxaflutole
Endrinaldehyde	Flufenoxuron	Kresoxim methyl
Endrinketone	Flumetsulam	Lenacil
EPN	Flumioxazin	Leptophos
Epoxiconazole (BAS 480F)	Fluometuron	Linuron
Ethalfuralin	Fluopicolid	Lufenuron
Ethidimuron (Sulfadiazole)	Fluopyram	Malaoxon
Ethion	Fluoxastrobin	Malathion
Ethirimol	Fluquinconazole	Mandipropamid
Ethofenprox	Fluridone	Mecarbam
Ethofumesate	Flusilazol	Mepanipyrim
Ethoprop (Ethoprophos)	Flusilazole	Mesosulfuron-methyl
Ethylan	Flutolanil	Metaflumizone
Etofenprox	Flutriafol	Metalaxyl
Etoxazole	Fluvalinate-tau I & tau II	Metamitron
Etridiazole	Fluxapyroxad	Metazachlor
Famoxadon	Fonofos	Metconazole
Fenamidone	Foramsulfuron	Methacrifos
Fenamiphos	Forchlorfenuron	Methamidophos
Fenarimol	Fosthiazate	Methidathion
Fenazaquin	Fuberidazole	Methiocarb (Mercaptodimethur)
Fenbuconazole	Furalaxyl	Methomyl
Fenhexamid	Furathiocarb	Methoprotryne
Fenitrothion	Halofenozide	Methoxychlor
Fenobucarb (Baycarb)	Halosulfuron-methyl	Methoxychlor,o,p'-
Fenoxycarb	Heptachlor	Methoxychlorolefin
Fenpropathrin	Heptachlorexo-epoxide	Methoxyfenozide
Fenpropidin	Hexachlorobenzene	
Fenpyroximate(E)	Hexaconazole	
Fenson	Hexaflumuron	
Metobromuron		

Metolachlor	Phorate	Pyridate
Metrafenone	Phosalone	Pyrimethanil
Metribuzin	Phosmet	Pyriproxyfen
Metsulfuron-methyl	Phosphamidon	Quinalphos
Mevinphos	Phoxim	Quinoclamine (ACN)
MGK-264	Picolinafen	Quinoxyfen
Mirex	Picoxystrobin	Ronnel
Monocrotophos (Azodrin)	Piperonyl butoxide	Rotenone
Moxidectin	Pirimicarb	Saflufenacil
Myclobutanil	Pirimiphos-ethyl	Secbumeton
Napropamide	Pirimiphos-methyl	Sethoxydim
Nicosulfuron	Pretilachlor	Silthiofam
Nicotine	Prochloraz	Simazine
Nitenpyram	Procymidone	Spinetoram
Nitralin	Prodiamine	Spinosad (A & D)
Nitrofen	Profenofos	Spirodiclofen
Nonachlor,cis-	Profluralin	Spiromesifen
Nonachlor,trans-	Promecarb	Spirotetramat
Norflurazon	Prometon	Spiroxamine I & II
Novaluron	Propachlor	Sulfentrazone
Omethoate	Propamocarb	Sulfotep
Oxadiazon	Propanil	Sulprofos
Oxadixyl	Propaquizafop	Tebuconazole
Oxamyl	Propargite	Tebufenoxide
Oxasulfuron	Propetamphos	Tebufenpyrad
Oxydemeton-methyl	Propham	Tebuthiuron
Oxyfluorfen	Propiconazole	Tecnazene
Paclobutrazol	Propisochlor	Teflubenzuron
Parathion	Propoxur	Tefluthrin
Parathion-methyl	Propyzamide	Temephos
Pebulate	Proquinazid	Tepraloxymid
Penconazole	Prosulfocarb	Terbufos
Pencycuron	Prothiofos	Terbufossulfone
Pendimethalin	Pymetrozine	Terbuthylazine
Pentachloroaniline	Pyracarbolid	Tetrachlorvinphos
Pentachloroanisole	Pyraclufos	Tetraconazole
Pentachlorobenzene	Pyraclostrobin	Tetradifon
Pentachlorobenzonitrile	Pyrazophos	Tetramethrin (I & II)
Pentachloronitrobenzene	Pyrethrin 1	Thiabendazole
Pentachlorothioanisole	Pyrethrin 2	Thiacloprid
Permethrin (cis & trans)	Pyridaben	Thiamethoxam
Phenmedipham	Pyridaphenthion	Thidiazuron
Phenothrin (I & II)		Thiodicarb
Phenthoate (Fenthoate)		Thiofanox
		Tifatul (Cymiazole)

<p>Tolclofos-methyl  Tolyfluanid  Tralkoxydim  Transfluthrin  Triadimefon  Triadimenol  Triallate  Triasulfuron (Logran)  Triazophos  Trichlorfon (DEP)  Tricyclazole  Trietazine  Trifloxystrobin  Triflumizol  Triflumuron  Trifluralin  Trimethacarb  Triticonazole  Uniconazole-P  Vamidothion  Zoxamide</p>		
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<b>Vitamin Analysis by High-Performance Liquid Chromatography</b>	<b>PAT-AM-010</b>	
<p>Vitamin A (as Beta Carotene)  Vitamin A (as retinyl palmitate)  Vitamin B1 (as thiamine HCl)  Vitamin B12 (as cyanocobalamin)  Vitamin B12 (as methyl cobalamin)  Vitamin B2 (as riboflavin)  Vitamin B3 (as niacinamide)  Vitamin B5 (as calcium d-pantothenate)  Vitamin B6 (as pyridoxine)  Vitamin B7 (Biotin)  Vitamin B9 (Folic Acid)  Vitamin C (as ascorbic acid)  Vitamin D2 (as ergocalciferol)  Vitamin D3 (as cholecalciferol)  Vitamin E (as dl-a tocopheryl acetate)  Vitamin K2 (Menaquinone)  Iodine (as potassium iodide)</p>		

<b>Quantitative analysis of Mycotoxins by LC-MS/MS</b>	<b>PAT-AM-034 (Modified AOAC 2007.01)</b>	
Ochratoxin A Aflatoxin M1 Aflatoxin B1 Aflatoxin B2 Aflatoxin G1 Aflatoxin G2 Deoxynivalenol Patulin Zearalenone		

<b>Pesticides And Mycotoxin Analysis in Cannabis &amp; Cannabis Products</b>	<b>PAT-AM-024</b>	
Abamectin Acephate Acequinocyl Acetamiprid Aldicarb Allethrin Azadirachtin Azoxystrobin Benzovindiflupyr Bifenazate Bifenthrin Boscalid Buprofezin Carbaryl Carbofuran Chlorantraniliprole Chlorphenapyr Chlorpyrifos Clofentezine Clothianidin Coumaphos Cyantraniliprole Cyfluthrin Cypermethrin Cyprodinil Daminozide Deltamethrin Diazinon Dichlorvos Dimethoate Dimethomorph Dinotefuran	Dodemorph Endosulfan sulfate Endosulfan-alpha Endosulfan-beta Ethoprophos Etofenprox Etoxazole Etridiazole Fenoxycarb Fenpyroximate Fensulfothion Fenthion Fenvalerate Fipronil Flonicamid Fludioxonil Fluopyram Hexythiazox Imazalil Imidacloprid Iprodione Kinoprene Kresoxim-methyl Malathion Metalaxyl Methiocarb Methomyl Methoprene Mevinphos MGK-264 Myclobutanil Naled	Novaluron Oxamyl Paclobutrazol Parathion-methyl Permethrin Phenothrin Phosmet Piperonyl butoxide Pirimicarb Prallethrin Propiconazole Propoxur Pyraclostrobin Pyrethrins Pyridaben Quintozene Resmethrin Spinetoram Spinosad Spirodiclofen Spiromesifen Spirotetramat Spiroxamine Tebuconazole Tebufenozide Teflubenzuron Tetrachlorvinphos Tetramethrin Thiacloprid Thiamethoxam Thiophanate-methyl Trifloxystrobin

<b>Elemental Analysis By ICP-MS</b>	<b>PAT-AM-020 (USP 233 Modified)</b>
Aluminium (Al) Arsenic (As) Cadmium (Cd) Calcium (Ca) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Magnesium (Mg) Manganese (Mn) Mercury (Hg) Molybdenum (Mo) Nickel (Ni) Potassium (K) Selenium (Se) Sodium (Na) Zinc (Zn) Uranium (U) Beryllium (Be) Silver (Ag) Antimony (Sb) Barium (Ba) Thallium (Tl) Vanadium (V) Thorium (Th)	

<b>Residual Solvents Analysis by Gas Chromatography</b>	<b>PAT-AM-021 (USP&lt;467&gt; Modified)</b>
1-Butanol 1-Pentanol 1-Propanol 2-Butanol (sec-butly alcohol) 2-Butanone (MEK) 2-Propanol (IPA) 3-Methyl-1-butanol (isoamyl alcohol) Acetic acid Acetone Anisole Butane Butyl acetate	





<b>Residual Solvents Analysis by Gas Chromatography</b>	<b>PAT-AM-021 (USP&lt;467&gt; Modified)</b>
Diethyl ether (ethyl ether) DMSO ( Dimethyl sulfoxide) Ethanol Ethyl acetate Ethyl Formate Formic acid Isobutanol (2-methyl-1-propanol) Isobutyl acetate Isopropyl acetate Methyl Acetate MIBK (4-Methyl-2-pentanone) MTBE (methyl-tert-butyl ether) n-Heptane (C7) n-Pentane (C5) Propane Propyl acetate Triethylamine	

<b>Cannabinoid Analysis in Cannabis and Its Derived Products by HPLC</b>	<b>PAT-AM-019 (Modified Agilent 5991-9285EN)</b>
CBC CBCA CBD CBDA CBDV CBG CBGA CBN D8-THC D9-THC THCA-A THCV	



Terpenes Profile by Gas Chromatography	PAT-AM-022 (Modified Agilent 5991-8499EN)
(-)-alpha-Bisabolol (-)-Guaiol (-)-Isopulegol 1,8-Cineole (Eucalyptol) 1R-endo-Fenchyl-Alcohol alpha-Cedrene alpha-Humulene Alpha-Pinene Alpha-Terpinene alpha-Terpineol beta-Caryophyllene Beta-Myrcene Beta-Pinene Borneol Camphene Carvacrol Cedrol cis-beta-Ocimene cis-Nerolidol Citronellol Delta-3-Carene d-Limonene Farnesol 1 Farnesol 2 gamma-Terpinene Geraniol Isoborneol Linalool Menthol m-Isopropyltoluene Nerol o-Isopropyltoluene Phytane p-Isopropyltoluene (p-Cymene) Sabinene Sabinene hydrate Squalene Terpinen-4-ol Terpinolene Thymol	trans-beta-Farnesene trans-beta-ocimene trans-Nerolidol Valencene





# Accredited Laboratory

A2LA has accredited

**PATHOGENIA INC**

*Saint Laurent, CANADA*

for technical competence in the field of

**Chemical 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 1<sup>st</sup> day of February 2023.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 4873.04  
Valid to January 31, 2025

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