21･01･19-NITE-AC-001
2021-01-19

Certificate of Accreditation

International Accreditation Japan (IAJapan) hereby accredits the following conformity assessment body as a Reference Material Producer of ASNITE accreditation program.

Accreditation Identification: ASNITE 0044 RMP

Name of Conformity Assessment Body: Tokyo Plant, FUJIFILM Wako Pure Chemical Corporation

Name of Legal Entity: FUJIFILM Wako Pure Chemical Corporation

Location of Conformity Assessment Body: 1633, Oazamatoba, Kawagoe-shi, Saitama 350-1101, Japan

Scope of Accreditation: as the following pages

Accreditation Requirement: ISO 17034:2016*

* The relevant accreditation requirements described in the ASNITE-R (General) Accreditation Scheme Document are also applied.

Effective Date of Accreditation: 2019-10-10

Expiry Date of Accreditation: 2023-03-03

Date of Initial Accreditation: 2010-09-03

Isao Kishimoto

KISHIMOTO Isao
Chief Executive, International Accreditation Japan (IAJapan)
National Institute of Technology and Evaluation

- International Accreditation Japan (IAJapan) is an RMP accreditation body which has signed MRAs of ILAC (International Laboratory Accreditation Cooperation) and APAC (Asia Pacific Accreditation Cooperation).
- MRA requirements are, in addition to relevant international standards and guides, requirements for participation in proficiency testing programs, surveillance and reassessment, and the policy on the traceability of measurement for MRA purpose.
- This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system in accordance with the recognized International Standard ISO 17034:2016.
- The latest accreditation information is publicly available on IAJapan Website as an accreditation certificate.

Category: Chemical Reference Materials
Type: Certified Reference Material
Property Characterized: Concentration
The Approach Used to Assign a Property Value: Measurement by One or More Method(s) in a Single Laboratory (ISO 17034:2016 7.12.3 NOTE 1 b), d)

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Inorganic Reference Material High Purity Inorganic Material (Reference Materials for Volumetric Analysis)	Amidosulfuric Acid (Purity)	≧ 99.90 %	≧ 0.03 %	Potentiometric titrimetry	2010.11.22
	Potassium Hydrogen Phthalate (Purity)	99.95 % to 100.05 %	≧ 0.03 %	Potentiometric titrimetry	
	Sodium Oxalate (Purity)	≧ 99.95 %	≧ 0.05 %	Potentiometric titrimetry	
	Sodium Carbonate (Purity)	≧ 99.95 %	≧ 0.03 %	Potentiometric titrimetry	2011.8.29
	Potassium Dichromate (Purity)	≧ 99.98 %	≧ 0.03 %	Potentiometric titrimetry	2012.7.12
	Potassium Iodate (Purity)	≧ 99.95 %	≧ 0.04 %	Potentiometric titrimetry	2012.12.17
	Sodium Chloride (Purity)	≧ 99.95 %	≧ 0.06 %	Potentiometric titrimetry	2013.9.26
	Sodium Fluoride (Purity)	≧ 99.90 %	≧ 0.04 %	Gravimetric analysis	2015.03.16

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	1,4-BTMSB-d4 (Purity)	≧ 99.0 %	≧ 0.5 %	Quantitative NMR	2010.9.3
	DSS-d6 (Purity)	91.9 % to 93.2 %	≧ 0.3 %	Quantitative NMR	
	Atrazine (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	
	Asulam (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	
	Anilofos (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Benthiocarb (Purity)	≧ 99.0 %	≧ 0.4 %	Freezing point depression method	
	BPMC (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	
	Bifenox (Purity)	≧ 99.0 %	≧ 0.5 %	Quantitative NMR	
	Bensulfuron-methyl (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Bethrodine (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Bensulide (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Chloroneb (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Cumyluron (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR and Freezing point depression method	
	Coumaphos (Purity)	≧ 98.0 %	≧ 0.5 %	Quantitative NMR and Freezing point depression method	
	Chlorfluazuron (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Cyprodinil (Purity)	≧ 99.0 %	≧ 0.5 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	DEP (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	2010.9.3
	DCMU (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Dithiopyr (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Dimepiperate (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Diazinon (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Diflubenzuron (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Echlomezol (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	EPN (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Etofenprox (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Flutolanil (Purity)	≧ 98.0 %	≧ 0.9 %	Quantitative NMR	
	Flufenoxuron (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Flazasulfuron (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Famoxadone (Purity)	≧ 98.0 %	≧ 0.6 %	Quantitative NMR and Freezing point depression method	
	Iprodione (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Isoxathion (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	
	Imazosulfuron (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Malathon (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	MCPP (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	2010.9.3
	MEP (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Mefenacet (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Metalaxyl (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Mepronil (Purity)	≧ 99.0 %	≧ 0.5 %	Quantitative NMR	
	Molinate (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Myclobutanil (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	MCP (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	NAC (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Procymidone (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Propyzamide (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	
	Pendimethalin (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Probenazole (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Pyridaphenthion (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	2,4- P A (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR and Freezing point depression method	
	Pyributicarb (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	Prochloraz (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	2010.9.3
	cis-Permethrin (Purity)	≧ 98.0 %	≧ 0.5 %	Quantitative NMR	
	trans-Permethrin (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	
	Simetryn (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Silafluofen (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Thiuram (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Thiophanate (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Triadimefon (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR and Freezing point depression method	
	Trifloxystrobin (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Tiadinil (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Teflubenzuron (Purity)	≧ 98.0 %	≧ 0.7 %	Quantitative NMR	
	Vinclozolin (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Warfarin (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Acephate (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Alachlor (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Bifenthrin (Purity)	≧ 98.0 %	≧ 0.5 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	Butamifos (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	2010.9.3
	Bentazone (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Cymoxanil (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Chlorfenapyr (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	CNP-amino (Purity)	≧ 97.0 %	≧ 0.5 %	Quantitative NMR	
	Chloro IPC (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	CAT (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Carbofuran (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Clothianidin (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Daminozide (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Flusulfamide (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Fludioxonil (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Fthalide (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Glyphosate (Purity)	≧ 96.0 %	≧ 0.6 %	Quantitative NMR	
	Isoprothiolane (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	
	Indanofan (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Isoxaben (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	Isofenphos (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	2010.9.3
	Linuron (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR and Freezing point depression method	
	Methyl Thioacetohydroxamate (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	MPP (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Methomyl (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Napropamide (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Pyrazoxyfen (Purity)	≧ 99.0 %	≧ 0.5 %	Quantitative NMR	
	Pyrimethanil (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Phosalone (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Propaphos (Purity)	≧ 97.0 %	≧ 0.3 %	Quantitative NMR	
	PAP (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Thiamethoxam (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Tolclofos-methyl (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Thiacloprid (Purity)	≧ 97.0 %	≧ 0.3 %	Quantitative NMR	
	Tebufenpyrad (Purity)	≧ 97.0 %	≧ 0.3 %	Quantitative NMR	
	Tetraconazole (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Tricyclazole (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	XMC (Purity)	≧ 98.0 %	≧ 0.4 %	Quantitative NMR	2010.9.3
	Carboxin (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR and Freezing point depression method	
	Ethylthiometon (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Methyl Dimethyldithiocarbamate (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	MIPC (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Profenofos (Purity)	≧ 98.0 %	≧ 0.3 %	Quantitative NMR	
	Esprocarb (Purity)	≧ 99.0 %	≧ 0.3 %	Quantitative NMR	
	Dimethyl Sulfone (Purity)	≧ 99.0 %	≧ 0.5 %	Quantitative NMR	
	Maleic Acid (Purity)	≧ 99.0 %	≧ 0.4 %	Quantitative NMR	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	16 amino acid mixture standard solution				2019.10.10
	L-Aspartic Acid	0.1800～0.2200 μmol/mL	0.0026 μmol/mL	Gravimetric	
	L-Glutamic Acid	0.900～1.100 μmol/mL	0.023 μmol/mL	Gravimetric	
	Sarcosine	0.1800～0.2200 μmol/mL	0.0032 μmol/mL	Gravimetric	
	L-Citrulline	0.900～1.100 μmol/mL	0.005 μmol/mL	Gravimetric	
	DL-2-Aminobutyric Acid	0.4500～0.5500 μmol/mL	0.0031 μmol/mL	Gravimetric	
	L-Cystine	0.900～1.100 μmol/mL	0.005 μmol/mL	Gravimetric	
	L-Methionine	0.900～1.100 μmol/mL	0.005 μmol/mL	Gravimetric	
	DL-3-Aminoisobutyric Acid	0.1800～0.2200 μmol/mL	0.0015 μmol/mL	Gravimetric	
	4-Aminobutyric Acid	0.1800～0.2200 μmol/mL	0.0016 μmol/mL	Gravimetric	
	2-Aminoethanol	0.1800～0.2200 μmol/mL	0.0019 μmol/mL	Gravimetric	
	5-Hydroxy-DL-Lysine	0.1800～0.2200 μmol/mL	0.0013 μmol/mL	Gravimetric	
	1-Methyl-L-Histidine	0.1800～0.2200 μmol/mL	0.0043 μmol/mL	Gravimetric	
	3-Methyl-L-Histidine	0.1800～0.2200 μmol/mL	0.0019 μmol/mL	Gravimetric	
	L-Anserine	0.1800～0.2200 μmol/mL	0.0040 μmol/mL	Gravimetric	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	L-Carnosine	0.1800～0.2200 μmol/mL	0.0037 μmol/mL	Gravimetric	2019.10.10
	L-Hydroxyproline	0.1800～0.2200 μmol/mL	0.0030 μmol/mL	Gravimetric	
	15 amino acid mixture standard solution				
	Taurine	4.500～5.500 μmol/mL	0.044 μmol/mL	Gravimetric	
	L-Threonine	4.500～5.500 μmol/mL	0.035 μmol/mL	Gravimetric	
	L-Serine	4.500～5.500 μmol/mL	0.035 μmol/mL	Gravimetric	
	Glycine	9.00～11.00 μmol/mL	0.07 μmol/mL	Gravimetric	
	L-Alanine	9.00～11.00 μmol/mL	0.08 μmol/mL	Gravimetric	
	L-Valine	9.00～11.00 μmol/mL	0.08 μmol/mL	Gravimetric	
	L-Isoleucine	4.500～5.500 μmol/mL	0.036 μmol/mL	Gravimetric	
	L-Leucine	4.500～5.500 μmol/mL	0.036 μmol/mL	Gravimetric	
	L-Tyrosine	4.500～5.500 μmol/mL	0.038 μmol/mL	Gravimetric	
	L-Phenylalanine	4.500～5.500 μmol/mL	0.035 μmol/mL	Gravimetric	
	L-Ornithine	2.250～2.750 μmol/mL	0.023 μmol/mL	Gravimetric	
	L-Lysine	4.500～5.500 μmol/mL	0.037 μmol/mL	Gravimetric	
	L-Histidine	4.500～5.500 μmol/mL	0.033 μmol/mL	Gravimetric	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	L-Arginine	2.250～2.750 μmol/mL	0.020 μmol/mL	Gravimetric	2019.10.10
	L-Proline	4.500～5.500 μmol/mL	0.040 μmol/mL	Gravimetric	
	18 amino acid mixture standard solution				
	L-Aspartic Acid	0.2250～0.2750 μmol/mL	0.0011 μmol/mL	Gravimetric	
	L-Threonine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	L-Serine	0.2250～0.2750 μmol/mL	0.0012 μmol/mL	Gravimetric	
	L-Glutamic Acid	0.2250～0.2750 μmol/mL	0.0048 μmol/mL	Gravimetric	
	Glycine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	L-Alanine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	L-Valine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	L-Cystine	0.1125～0.1375 μmol/mL	0.0007 μmol/mL	Gravimetric	
	L-Methionine	0.2250～0.2750 μmol/mL	0.0018 μmol/mL	Gravimetric	
	L-Isoleucine	0.2250～0.2750 μmol/mL	0.0020 μmol/mL	Gravimetric	
	L-Leucine	0.2250～0.2750 μmol/mL	0.0018 μmol/mL	Gravimetric	
	L-Tyrosine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	L-Phenylalanine	0.2250～0.2750 μmol/mL	0.0020 μmol/mL	Gravimetric	2019.10.10
	Ammonium Chloride	0.2250～0.2750 μmol/mL	0.0019 μmol/mL	Gravimetric	
	L-Lysine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	L-Histidine	0.2250～0.2750 μmol/mL	0.0016 μmol/mL	Gravimetric	
	L-Arginine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	L-Proline	0.2250～0.2750 μmol/mL	0.0019 μmol/mL	Gravimetric	
	12 amino acid mixture standard solution				
	4-Aminobutyric Acid	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	2-Aminoethanol	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	Ammonium Chloride	0.2250～0.2750 μmol/mL	0.0039 μmol/mL	Gravimetric	
	5-Hydroxy-DL-lysine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	L-Ornithine	0.2250～0.2750 μmol/mL	0.0013 μmol/mL	Gravimetric	
	L-Lysine	0.2250～0.2750 μmol/mL	0.0012 μmol/mL	Gravimetric	
	1-Methyl-L-histidine	0.2250～0.2750 μmol/mL	0.0018 μmol/mL	Gravimetric	
	L-Histidine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	3-Methyl-L-histidine	0.2250～0.2750 μmol/mL	0.0019 μmol/mL	Gravimetric	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	L-Anserine	0.2250～0.2750 μmol/mL	0.0024 μmol/mL	Gravimetric	2019.10.10
	L-Carnosine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	L-Arginine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	25 amino acid mixture standard solution				
	O-Phospho-L-serine	0.1125～0.1375 μmol/mL	0.0014 μmol/mL	Gravimetric	
	Taurine	0.1125～0.1375 μmol/mL	0.0012 μmol/mL	Gravimetric	
	O-Phosphorylethanolamine	0.1125～0.1375 μmol/mL	0.0013 μmol/mL	Gravimetric	
	Urea	4.500～5.500 μmol/mL	0.044 μmol/mL	Gravimetric	
	L-Aspartic Acid	0.2250～0.2750 μmol/mL	0.0019 μmol/mL	Gravimetric	
	L-Threonine	0.2250～0.2750 μmol/mL	0.0019 μmol/mL	Gravimetric	
	L-Serine	0.2250～0.2750 μmol/mL	0.0013 μmol/mL	Gravimetric	
	L-Glutamic Acid	0.2250～0.2750 μmol/mL	0.0054 μmol/mL	Gravimetric	
	Sarcosine	0.5625～0.6875 μmol/mL	0.0075 μmol/mL	Gravimetric	
	Glycine	0.2250～0.2750 μmol/mL	0.0016 μmol/mL	Gravimetric	
	L-Alanine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	

Sub-category	Property	Range of Property Value	Range of Expanded Uncertainty (Level of Confidence Approximately 95 %) (k=2)	Characterization Technique	Effective Date of Accreditation
Organic Reference Material Pure Organic Compound	L-Citrulline	0.2250～0.2750 μmol/mL	0.0016 μmol/mL	Gravimetric	2019.10.10
	DL-2-Aminoisobutyric Acid	0.1125～0.1375 μmol/mL	0.0009 μmol/mL	Gravimetric	
	L-Valine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	L-Cystine	0.1125～0.1375 μmol/mL	0.0009 μmol/mL	Gravimetric	
	L-Methionine	0.2250～0.2750 μmol/mL	0.0021 μmol/mL	Gravimetric	
	L-Cystathionine	0.1125～0.1375 μmol/mL	0.0007 μmol/mL	Gravimetric	
	L-Isoleucine	0.2250～0.2750 μmol/mL	0.0017 μmol/mL	Gravimetric	
	L-Leucine	0.2250～0.2750 μmol/mL	0.0015 μmol/mL	Gravimetric	
	L-Tyrosine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	L-Phenylalanine	0.2250～0.2750 μmol/mL	0.0014 μmol/mL	Gravimetric	
	β-Alanine	0.2250～0.2750 μmol/mL	0.0018 μmol/mL	Gravimetric	
	DL-3-Aminoisobutyric Acid	0.2250～0.2750 μmol/mL	0.0020 μmol/mL	Gravimetric	
	L-Hydroxyproline	0.2250～0.2750 μmol/mL	0.0029 μmol/mL	Gravimetric	
	L-Proline	0.2250～0.2750 μmol/mL	0.0029 μmol/mL	Gravimetric	

(End of Attachment)