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Metabolites in Human Plasma

Art. ID	NIST-1950
Unit	5 vials x 1,0 mL each
Deliverydetails	Dry ice shipment /not restricted

Description

This Standard Reference Material (SRM) is intended primarily for validation of methods for determining metabolites such as fatty acids, electrolytes, vitamins, hormones, and amino acids in human plasma and similar materials. This SRM can also be used for comparison of measurement technologies used in metabolomic studies and for quality assurance when assigning values to in-house reference materials. The SRM is intended to represent ?normal? human plasma. A unit of NIST-1950 consists of 5 vials, each containing approximately 1.0 mL of plasma /// Sample value(s) - please ask for current certificate.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
	Cholesterol	[57-88-5]	151,4 ± 3,3	mg/dL		
as triolein	Glycerides total		99,0 ± 2,1	mg/dL		
	Cholesterol	[57-88-5]	3,917 ± 0,085	mmol/L		
as triolein	Glycerides total		1,12 ± 0,02	mmol/L		
	Dodecanoic acid (Lauric acid) (C12:0)	[143-07-7]	1,86 ± 0,11	µg/g		
	Hexadecanoic acid (Palmitic acid) (C16:0)	[57-10-3]	594 ± 19	µg/g		
	(Z)-9-Hexadecenoic acid (Palmitoleic acid) (C16:1 n-7)	[373-49-9]	53,5 ± 6,4	µg/g		
	Octadecanoic acid (Stearic acid) (C18:0)	[57-11-4]	179 ± 12	µg/g		
	(Z,Z,Z)-9,12,15-Octadecatrienoic acid (alpha-Linolenic acid) (C18:3 n-3)	[463-40-1]	14,9 ± 1,0	µg/g		
	(Z)-9-Octadecenoic acid (Oleic acid) (C18:1 n-9)	[112-80-1]	447 ± 43	µg/g		
	(Z,Z)-9,12-Octadecadienoic acid (Linoleic acid) (C18:2 n-6)	[60-33-3]	780 ± 39	µg/g		
	Docosanoic acid (Behenic acid) (C22:0)	[112-85-6]	15,9 ± 1,5	µg/g		
	Dodecanoic acid (Lauric	[143-07-7]	6,81 ± 0,41	µmol/L		

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	acid) (C12:0)			
	Hexadecanoic acid (Palmitic acid) (C16:0)	[57-10-3]	2177 ± 71	µmol/L
	(Z)-9-Hexadecenoic acid (Palmitoleic acid) (C16:1 n-7)	[373-49-9]	196 ± 23	µmol/L
	Octadecanoic acid (Stearic acid) (C18:0)	[57-11-4]	658 ± 42	µmol/L
	(Z,Z,Z)-9,12,15-Octadecatrienoic acid (alpha-Linolenic acid) (C18:3 n-3)	[463-40-1]	54,6 ± 3,6	µmol/L
	(Z)-9-Octadecenoic acid (Oleic acid) (C18:1 n-9)	[112-80-1]	1637 ± 157	µmol/L
	(Z,Z)-9,12-Octadecadienoic acid (Linoleic acid) (C18:2 n-6)	[60-33-3]	2858 ± 144	µmol/L
	Docosanoic acid (Behenic acid) (C22:0)	[112-85-6]	58,5 ± 5,6	µmol/L
	Alanine	[302-72-7]	26,2 ± 2,2	mg/kg
	Glycine	[56-40-6]	18,0 ± 1,2	mg/kg
	Histidine		11,04 ± 0,55	mg/kg
	Isoleucine		7,13 ± 0,42	mg/kg
	Leucine		12,90 ± 0,82	mg/kg
	Lysine		20,0 ± 1,9	mg/kg
	Methionine	[63-68-3]	3,26 ± 0,26	mg/kg
	Proline		19,9 ± 1,1	mg/kg
	Serine		9,87 ± 0,44	mg/kg
	Threonine		13,94 ± 0,70	mg/kg
	Tyrosine	[60-18-4]	10,17 ± 0,53	mg/kg
	Valine		20,9 ± 1,2	mg/kg
	Alanine	[302-72-7]	300 ± 26	µmol/L
	Glycine	[56-40-6]	245 ± 16	µmol/L
	Histidine		72,6 ± 3,6	µmol/L
	Isoleucine		55,5 ± 3,4	µmol/L
	Leucine		100,4 ± 6,3	µmol/L
	Lysine		140 ± 14	µmol/L

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	Methionine	[63-68-3]	22,3 ± 1,8	µmol/L
	Proline		177 ± 9	µmol/L
	Serine		95,9 ± 4,3	µmol/L
	Threonine		119,5 ± 6,1	µmol/L
	Tyrosine	[60-18-4]	57,3 ± 3,0	µmol/L
	Valine		182,2 ± 10,4	µmol/L
	Retinol (Vitamin A)	[68-26-8]	0,396 ± 0,034	mg/kg
	alpha-Tocopherol	[10191-41-0]	8,01 ± 0,22	mg/kg
	gamma- + beta-Tocopherol		1,67 ± 0,16	mg/kg
	Lutein	[127-40-2]	0,067 ± 0,022	mg/kg
	Zeaxanthin	[144-68-3]	0,021 ± 0,005	mg/kg
	beta-Cryptoxanthin		0,038 ± 0,003	mg/kg
	alpha-Carotene total		0,025 ± 0,005	mg/kg
	beta-Carotene total	[7235-40-7]	0,077 ± 0,004	mg/kg
	25-Hydroxyvitamin D3	[19356-17-3]	24,27 ± 0,75	ng/g
	5-Methyltetrahydrofolate		12,11 ± 0,31	ng/g
	Pyridoxal 5'-Phosphate	[853645-22-4]	8,02 ± 0,45	ng/g
	Retinol (Vitamin A)	[68-26-8]	0,404 ± 0,035	µg/mL
	alpha-Tocopherol	[10191-41-0]	8,18 ± 0,22	µg/mL
	gamm- + beta-Tocopherol		1,71 ± 0,17	µg/mL
	Lutein	[127-40-2]	0,069 ± 0,023	µg/mL
	Zeaxanthin	[144-68-3]	0,022 ± 0,005	µg/mL
	beta-Cryptoxanthin		0,039 ± 0,003	µg/mL
	alpha-Carotene total		0,026 ± 0,005	µg/mL
	beta-Carotene total	[7235-40-7]	0,079 ± 0,004	µg/mL
	25-Hydroxyvitamin D3	[19356-17-3]	24,78 ± 0,77	ng/mL
	5-Methyltetrahydrofolate		12,36 ± 0,32	ng/mL
	Pyridoxal 5'-Phosphate	[853645-22-4]	8,19 ± 0,46	ng/mL
	Creatinine	[60-27-5]	0,6789 ± 0,0108	mg/dL
	Glucose		82,16 ± 1,00	mg/dL
	Urea	[57-13-6]	23,45 ± 0,49	mg/dL
	Uric Acid	[69-93-2]	4,274 ± 0,089	mg/dL
	Homocysteine		1,150 ± 0,026	mg/L
	Cortisol	[50-23-7]	82,2 ± 1,7	ng/g
	Progesterone	[57-83-0]	1,452 ± 0,037	ng/g

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	Testosterone	[58-22-0]	2,169 ± 0,046	ng/g
	Creatinine	[60-27-5]	0,0600 ± 0,0009	mmol/L
	Glucose		4,560 ± 0,056	mmol/L
	Urea	[57-13-6]	3,90 ± 0,08	mmol/L
	Uric Acid	[69-93-2]	0,254 ± 0,005	mmol/L
	Homocysteine		8,50 ± 0,20	µmol/L
	Cortisol	[50-23-7]	83,9 ± 1,7	ng/mL
	Progesterone	[57-83-0]	1,482 ± 0,038	ng/mL
	Testosterone	[58-22-0]	2,214 ± 0,047	ng/mL
	Calcium (Ca)	[7440-70-2]	1,936 ± 0,024	mmol/L
	Magnesium (Mg)	[7439-95-4]	0,696 ± 0,004	mmol/L
	Potassium (K)	[7440-09-7]	3,665 ± 0,025	mmol/L
	Sodium (Na)	[7440-23-5]	141,76 ± 0,31	mmol/L