SickKids Amino Acids Quantitative, Serum/Plasma Reference Intervals

Amino Acid	0 to 6D (µmol/L)	7D to 1M (µmol/L)	1M to <1Y (µmol/L)	1Y to <13Y (µmol/L)	13Y to <19Y (µmol/L)	≥ 19Y (µmol/L)
Phosphoserine	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
Hydroxyproline	28 - 104	29 - 110	12 - 59	10 - 34	1 - 35	4 - 25
Histidine	76 - 215	45 - 168	65 - 113	65 - 113	65 - 113	50 - 106
Phosphoethanolamine	0 - 10	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
Asparagine	38 - 91	38 - 91	38 - 91	38 - 91	38 - 91	38 - 79
1-Methylhistidine	0 - 20	0 - 19	1 - 30	1 - 30	1 - 30	0 - 39
Taurine	87 - 375	87 - 375	55 - 204	55 - 204	55 - 204	31 - 97
3-Methylhistidine	6 - 21	4 - 18	4 - 18	4 - 18	4 - 12	3 - 10
Serine	199 - 843	199 - 843	112 - 216	112 - 216	112 - 216	60 - 149
Glutamine	451 - 1113	332 - 789	332 - 789	467 - 755	467 - 755	397-781
Carnosine	1 - 19	1 - 19	2 - 7	2 - 7	2 - 7	1 - 13
Arginine	2 - 118	2 - 118	47 - 138	66 - 150	66 - 150	29 - 123
Glycine	299 - 782	299 - 782	176 - 398	176 - 398	218 - 407	141-432
Anserine	0 - 5	0 - 5	0 - 5	0 - 2	0 - 2	0 - 5
EA/ARS/SAC (Ethanolamine/Arginosuc -cinic acid/Saccharopine)	23 - 110	23 - 110	9 - 27	8 - 18	8 - 18	5 - 12
Aspartate	19 - 121	19 - 121	20 - 42	20 - 42	20 - 42	2 - 19
Sarcosine	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
Glutamate	91 - 401	91 - 401	74 - 266	74 - 266	74 - 266	15 - 112
Citrulline	9 - 44	9 - 44	9 - 44	16 - 41	15 - 36	15 - 50
β-alanine	3 - 27	3 - 27	3 - 27	3 - 27	5 - 20	2 - 17
Threonine	81 - 313	81 - 313	81 - 313	72 - 185	72 - 185	54 - 208
Alanine	175 - 427	208 - 588	208 - 588	208 - 588	208 - 588	188-559
GABA/ Homocitrulline	0 - 5	0 - 5	0 - 7	0 - 7	0 - 9	0 - 3
Aminoadipic Acid	0 - 4	0 - 4	0 - 3	0 - 2	0 - 2	0 - 2
Proline	127 - 292	127 - 292	127 - 292	118 - 372	116 - 360	112-335
β-aminoisobutyric acid	0 - 19	0 - 19	0 - 19	0 - 2	0 - 2	1 - 5
Hydroxylysine 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 2
Hydroxylysine 2	2 - 5	2 - 5	1 - 4	0 - 2	0 - 2	0 - 2
α-aminobutyric acid	7 - 42	8 - 42	8 - 30	8 - 30	8 - 30	8 - 38
Cystathionine	0 - 9	0 - 9	0 - 9	0 - 2	0 - 3	0 - 2
Ornithine	82 - 365	82 - 365	40 - 132	34 - 94	34 - 94	29 - 104
Cystine	16 - 53	16 - 57	16 - 57	16 - 57	16 - 57	20 - 66
Lysine	90 - 319	90 - 319	102 - 259	102 - 259	102 - 259	110-243
Tyrosine	27 - 187	27 - 187	34 - 151	45 - 126	34 - 88	28 - 87
Methionine	13 - 44	13 - 44	13 - 44	13 - 44	13 - 44	13 - 35
Valine	87 - 326	87 - 326	128 - 361	128 - 361	166 - 301	138-300
Isoleucine	25 - 129	25 - 129	30 - 113	43 - 129	32 - 127	37 - 94
Alloisoleucine	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5
Leucine	46 - 165	55 - 188	55 - 188	85 - 226	84 - 227	74 - 156
Phenylalanine	49 - 107	49 - 107	52 - 116	55 - 100	55 - 100	40 - 85
Tryptophan	22 - 59	22 - 62	37 - 80	35 - 76	37 - 66	26 - 61