Infant Intakes of Human Milk Branched Chain Amino Acids are Negatively Associated with Infant Growth and Influenced by Maternal Body Mass Index

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Supplemental Table 1. Multiple Reaction Monitoring Parameters

Compound	Q1 Mass	Q3 Mass	Dwell (msec)	DP (V)	EP (V)	CE (V)	CXP (V)
ALA	218.3	130.1	100	16	10	17	8
ARG	303.4	69.9	100	41	10	51	14
ASN	243.3	157.2	100	31	10	15	10
ASP	304.3	216.2	100	16	10	19	14
C-C	497.2	248.2	100	46	10	25	16
CYS	336	190	100	36	10	17	10
GLN	275.3	172.1	100	26	10	21	10
GLU	318.3	172.1	100	26	10	21	10
GLY	204.1	144	100	21	10	13	8
HIS	370.2	196.3	100	36	10	33	12
IS-d3MET	281.1	193.2	100	21	10	17	12
IS-HARG	317.3	84.1	100	41	10	53	4
IS-HPHE	308.3	220.2	100	36	10	15	14
LEU, ILE	260.3	172.1	100	26	10	17	10
LYS	361.2	301.3	100	36	10	17	8
MET	278.3	190.1	100	21	10	17	12
PHE	294.3	206.1	100	26	10	17	14
PRO	244.3	156.2	100	26	10	19	10
Se-C	593	296	100	46	10	23	16
SER	234.3	146	100	26	10	17	10
THR	248.3	160.2	100	36	10	17	10
TRP	333.3	245.1	100	36	10	21	10
TYR	396.2	136.2	100	46	10	43	8
VAL	246.3	158.1	100	21	10	17	10

DP = declustering potential, EP = entrance potential, CE = collision energy, and CXP = cell exit potential

ARG = arginine, ALA = alanine, ASN = asparagine, ASP = aspartic acid, CYS = cysteine, C-C = cystine, GLU = glutamic acid, GLN = glutamine, GLY = glycine, HIS = histidine, IS-HARG = homoarginine, IS-HPHE = homophenylalanine, ILE = isoleucine, LEU = leucine, LYS = lysine, MET = methionine, IS-d3MET = methionine-d3, PHE = phenylalanine, PRO = proline, Se-C = selenocysteine, SER = serine, THR = threonine, TRP = tryptophan, TRY = tyrosine, VAL = valine

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Supplemental Table 2. Analyte Coefficient of Variance (CV)

Compound	CV
ALA	16.43
ARG	40.39
ASN	27.365
ASP	19.02
C-C	20.955
CYS	58.45
GLN	21.32
GLU	13.07
GLY	26.555
HIS	36.29
ILE	14.7
LEU	11.905
LYS	22.835
MET	46.57
PHE	16.225
PRO	15.52
Se-C	Not detectable
SER	9.42
THR	42.025
TRP	24.295
TYR	20.685
VAL	17.08

ARG = arginine, ALA = alanine, ASN = asparagine, ASP = aspartic acid, CYS = cysteine, C-C = cystine, GLU = glutamic acid, GLN = glutamine, GLY = glycine, HIS = histidine, ILE = isoleucine, LEU = leucine, LYS = lysine, MET = methionine, PHE = phenylalanine, PRO = proline, Se-C = selenocysteine, SER = serine, THR = threonine, TRP = tryptophan, TRY = tyrosine, VAL = valine

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Supplemental Table 3. Infant Body Composition Over the First 6 Months of Life

	0.5 Month			2 Month			6 Month		
Mean ± SE	NW	OB	P Value*	NW	OB	P Value*	NW	OB	P Value*
WAZ	-0.034 ± 0.11	0.055 ± 0.09	0.534	-0.087 ± 0.11	-0.360 ± 0.13	0.121	-0.196 ± 0.12	-0.017 ± 0.17	0.383
WLZ	-0.003 ± 0.09	0.240 ± 0.11	0.101	0.466 ± 0.10	0.186 ± 0.11	0.07	0.123 ± 0.14	0.434 ± 0.15	0.129
FM (kg)	0.482 ± 0.02	0.562 ± 0.02	**0.001**	1.085 ± 0.03	1.075 ± 0.04	0.857	2.220 ± 0.08	2.367 ± 0.10	0.263
FMI (kg/m^2)	1.793 ± 0.05	2.112 ± 0.06	**<0.001**	3.327 ± 0.10	3.315 ± 0.10	0.928	5.092 ± 0.18	5.502 ± 0.22	0.151
FFM (kg)	2.688 ± 0.04	2.760 ± 0.03	0.189	3.550 ± 0.06	3.566 ± 0.06	0.848	4.536 ± 0.07	5.749 ± 0.09	0.064
FFMI (kg/m^2)	10.089 ± 0.10	10.405 ± 0.09	**0.023**	10.919 ± 0.11	11.051 ± 0.11	0.396	10.418 ± 0.13	11.048 ± 0.13	**0.001**

**T-tests were used to test significant differences between groups. NW = normal weight, OB = obese, WAZ = weight-for-age z-score, WLZ = weight-for-length z-score, FM = fat mass, FMI = fat mass index, FFM = fat free mass, FFMI = fat free mass index*

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Supplemental Table 4. Infant Feeding Patterns Over the First 6 Months of Life

	0.5M			2M			6M		
	NW (N = 56)	**OB (N = 46)**	**P Value**	**NW (N = 54)**	**OB (N = 46)**	**P Value**	**NW (N = 51)**	**OB (N = 29)**	**P Value**
Total Intake (mL/kg/day), median (IQR)[1]	179.6 (129.2 - 226.8)	163.6 (113.0 - 211.2)	0.842	114 (84.0 - 155.9)	135 (86.7 - 169.8)	0.312	76.8 (53.2 - 127.4)	60.4 (44.0 - 106.7)	0.341
Human Milk Intake (mL/kg/day), median (IQR)[1]	179.6 (129.2 - 226.8)	152.6 (93.6 - 211.2)	0.551	114 (85.4 - 155.9)	128.1 (76.5 - 168.4)	0.544	76.8 (53.2 - 127.4)	60.4 (44.0 - 106.7)	0.341
Infant Feeding Status[2]			0.005			0.048			0.274
Supplemented with Formula, N (%)	2 (3.6%)	10 (21.7%)		2 (3.7%)	7 (15.2%)		1 (2.0%)	2 (7.4%)	
Not Supplemented with Formula, N (%)	54 (96.4%)	36 (78.3%)		52 (96.3%)	39 (84.8%)		50 (98.0)	25 (92.6%)	

[1] *Mann-Whitney U non-parametric tests were used to determine significant difference between groups*
[2] *Chi-Square tests were used to determine significant difference between groups*
NW = normal weight, OB = obese