

A)

Time (hour)	Pulse				Chase			
	0	4	8	24	28	48	120	
Alanine	0.77 ± 0.03	78.75 ± 1.08	80.93 ± 3.46	65.39 ± 1.62	3.42 ± 0.09	5.10 ± 0.83	2.27 ± 0.07	
Arginine	nd	nd	nd	nd	nd	nd	nd	
Asparagine	0.53 ± 0.07	21.02 ± 2.33	43.69 ± 2.15	48.41 ± 1.79	31.55 ± 2.45	11.67 ± 2.25	4.23 ± 0.71	
Aspartate	0.00 ± 0.00	71.45 ± 0.97	81.52 ± 0.78	69.54 ± 1.26	6.05 ± 3.10	2.34 ± 0.19	0.56 ± 0.00	
Glutamate	0.20 ± 0.03	21.68 ± 1.69	56.62 ± 0.83	65.24 ± 1.68	33.31 ± 1.85	5.90 ± 0.47	2.11 ± 0.06	
Glutamine	1.47 ± 0.34	23.27 ± 0.83	53.32 ± 1.49	70.87 ± 0.78	36.35 ± 2.16	6.06 ± 0.63	2.71 ± 0.11	
Glycine	0.12 ± 0.25	69.49 ± 2.00	76.12 ± 4.26	14.65 ± 3.46	2.63 ± 0.12	0.45 ± 0.22	0.23 ± 0.20	
Isoleucine	0.07 ± 0.08	32.17 ± 1.94	46.50 ± 0.40	20.12 ± 2.48	15.10 ± 1.31	4.08 ± 1.97	2.49 ± 0.61	
Leucine	0.04 ± 0.09	34.99 ± 2.70	48.61 ± 2.28	16.26 ± 1.69	4.04 ± 1.94	3.19 ± 2.12	1.57 ± 0.25	
Lysine	0.10 ± 0.13	29.35 ± 1.79	44.38 ± 1.89	23.97 ± 3.33	26.16 ± 0.69	4.97 ± 2.65	3.40 ± 1.38	
Methionine	0.00 ± 0.00	46.38 ± 2.02	64.09 ± 1.21	41.88 ± 2.59	8.66 ± 0.70	2.11 ± 0.32	0.63 ± 0.00	
Phenylalanine	0.00 ± 0.00	65.81 ± 3.60	72.41 ± 1.65	38.31 ± 1.98	2.90 ± 0.52	1.89 ± 0.41	0.52 ± 0.00	
Proline	0.01 ± 0.01	4.08 ± 0.23	11.29 ± 0.48	19.92 ± 1.01	28.26 ± 1.35	11.40 ± 0.31	5.00 ± 0.13	
Serine	0.13 ± 0.05	80.32 ± 1.51	82.76 ± 1.01	53.36 ± 2.40	1.83 ± 0.13	2.82 ± 0.31	1.32 ± 0.07	
Threonine	0.65 ± 0.16	42.63 ± 0.91	53.18 ± 4.57	33.61 ± 2.29	15.71 ± 1.11	7.99 ± 0.67	3.68 ± 0.12	
Tyrosine	0.00 ± 0.00	27.60 ± 4.91	48.99 ± 3.30	18.15 ± 3.24	0.77 ± 1.44	2.05 ± 1.34	1.16 ± 0.34	
Valine	0.00 ± 0.00	42.43 ± 3.04	58.08 ± 1.82	31.61 ± 3.37	3.62 ± 0.31	3.00 ± 0.68	0.95 ± 0.27	
Butyrate	0.00 ± 0.00	13.71 ± 2.45	32.13 ± 3.52	43.82 ± 1.35	22.63 ± 2.78	5.83 ± 1.10	1.66 ± 0.00	
Citrate	0.24 ± 0.36	0.58 ± 0.67	0.43 ± 0.85	51.76 ± 1.50	62.35 ± 6.30	2.52 ± 2.14	0.65 ± 0.00	
Fumarate	0.00 ± 0.00	45.75 ± 7.48	62.51 ± 3.25	50.80 ± 4.27	23.23 ± 3.36	11.24 ± 2.42	2.09 ± 0.16	
GABA	0.00 ± 0.00	3.90 ± 1.16	15.98 ± 6.45	23.58 ± 1.44	10.14 ± 3.20	0.00 ± 0.00	0.00 ± 0.00	
Glucose	0.34 ± 0.40	52.40 ± 2.28	58.75 ± 0.87	26.09 ± 1.91	5.92 ± 0.19	5.32 ± 0.93	1.84 ± 0.85	
Malate	0.81 ± 0.99	73.29 ± 7.67	79.23 ± 3.06	79.32 ± 14.2	5.70 ± 0.70	0.00 ± 0.00	0.59 ± 0.44	
Ornithine	0.09 ± 0.15	9.92 ± 0.48	27.14 ± 5.58	27.52 ± 3.40	38.90 ± 3.48	5.36 ± 4.43	4.26 ± 2.20	
Pyroglutamate	0.06 ± 0.06	18.33 ± 1.67	47.98 ± 4.72	62.96 ± 0.80	37.24 ± 2.23	7.37 ± 0.61	2.70 ± 0.13	
Pyruvate	0.00 ± 0.00	71.38 ± 2.18	77.09 ± 0.81	35.38 ± 7.98	2.12 ± 1.29	0.22 ± 0.26	0.00 ± 0.00	
Succinate	0.00 ± 0.00	14.96 ± 3.91	46.74 ± 2.40	60.43 ± 1.61	32.06 ± 1.40	2.57 ± 0.67	0.66 ± 0.00	
Sucrose	0.97 ± 0.06	77.30 ± 1.93	80.02 ± 2.45	70.81 ± 2.33	2.54 ± 0.33	3.63 ± 0.48	1.70 ± 0.03	
Xylose	0.25 ± 0.50	1.80 ± 2.07	32.08 ± 1.45	17.45 ± 20.24	22.08 ± 2.08	0.00 ± 0.00	0.00 ± 0.00	

B)

Time (hour)	Pulse				Chase			
	0	4	8	24	28	48	120	
Alanine	1.30 ± 0.10	5.78 ± 0.50	12.61 ± 0.95	20.73 ± 0.49	19.49 ± 0.48	15.28 ± 0.80	8.11 ± 0.11	
Arginine	0.40 0.53	1.04 0.72	2.54 1.35	7.20 0.71	7.58 0.90	7.89 1.16	4.91 0.31	
Asparagine	nd	nd	nd	nd	nd	nd	nd	
Aspartate	0.82 ± 0.12	3.10 ± 0.60	8.58 ± 0.68	15.14 ± 0.49	15.44 ± 0.64	13.79 ± 1.08	7.97 ± 0.17	
Glutamate	0.51 ± 0.06	1.12 ± 0.12	5.21 ± 0.59	13.55 ± 0.65	15.09 ± 0.67	13.87 ± 0.23	7.04 ± 0.13	
Glutamine	nd	nd	nd	nd	nd	nd	nd	
Glycine	1.56 ± 0.24	7.03 ± 0.25	14.06 ± 0.74	20.14 ± 0.41	18.66 ± 0.47	14.75 ± 1.19	8.42 ± 0.09	
Isoleucine	0.99 ± 0.04	3.06 ± 0.35	7.74 ± 0.63	12.20 ± 0.62	12.22 ± 0.52	10.73 ± 1.15	7.48 ± 0.18	
Leucine	0.75 ± 0.09	4.29 ± 0.26	10.45 ± 0.62	16.02 ± 0.50	15.34 ± 0.42	12.42 ± 1.19	8.00 ± 0.16	
Lysine	0.20 ± 0.08	2.49 ± 0.06	6.91 ± 0.59	11.42 ± 0.51	11.21 ± 0.39	10.04 ± 0.12	6.05 ± 0.20	
Methionine	nd	nd	nd	nd	nd	nd	nd	
Phenylalanine	0.08 ± 0.02	2.47 ± 0.44	7.81 ± 0.63	13.53 ± 0.44	12.78 ± 0.57	9.58 ± 1.09	5.02 ± 0.10	
Proline	0.46 ± 0.04	0.78 ± 0.16	4.14 ± 0.38	9.63 ± 0.65	11.25 ± 0.63	11.63 ± 0.94	7.75 ± 0.30	
Serine	1.17 ± 0.22	6.02 ± 0.42	12.84 ± 0.71	20.25 ± 0.47	18.68 ± 0.57	14.61 ± 0.86	7.55 ± 0.09	
Threonine	3.48 ± 0.30	5.31 ± 0.35	9.04 ± 0.61	13.72 ± 0.60	14.09 ± 0.45	13.71 ± 0.76	9.12 ± 0.25	
Tyrosine	nd	nd	nd	nd	nd	nd	nd	
Valine	2.29 ± 0.15	4.51 ± 0.37	8.43 ± 0.52	12.61 ± 0.41	12.29 ± 0.37	9.66 ± 1.97	7.06 ± 0.06	