

Supplemental Table 1. Composition of AIN-93G-based exosome and RNA-depleted (ERD) and exosome and RNA-sufficient (ERS) diets.¹

ERD	ERS	g/kg
Cornstarch	Cornstarch	330
Soy Protein	Soy Protein	163
Dextrinized cornstarch	Dextrinized cornstarch	132
Milk Powder (sonicated exosomes), ~5% lactose	Milk Powder (exosomes), ~5% lactose	105
Sucrose	Sucrose	100
Soybean oil (no additives)	Soybean oil (no additives)	70
Fiber	Fiber	50
Mineral mix (AIN-93G-MX)	Mineral mix (AIN-93G-MX)	35
Vitamin mix (AIN-93-VX)	Vitamin mix (AIN-93-VX)	10
L-Cystine	L-Cystine	3
Choline bitartrate (41.1% choline)	Choline bitartrate (41.1% choline)	2.5
Tert-butylhydroquinone	Tert-butylhydroquinone	0.014

¹Abbreviation: AIN-93G, American Institute of Nutrition growth diet; MX, mineral mixture; VX, vitamin mixture.

Supplemental Table 2. Multiple reaction monitoring transitions and parameters used in this study. Transitions were taken from Yuan et al. [28].¹

Amino acid	Ionization mode	Q1¹	Q3	Dwell time (s)	Collision energy (eV)
Alanine	+	90.1	44.2	3	13
Arginine	+	175.0	60.0	3	16
Asparagine	+	133.1	74.0	3	19
Aspartate	+	134.0	74.0	3	17
Cysteine	+	122.1	59.1	3	29
Glutamine	+	147.1	84.1	3	17
Glutamate	+	148.1	84.1	3	17
Glycine	+	76.1	30.5	3	18
Histidine	+	156.1	110.1	3	14
Leucine/Isoleucine	+	132.1	86.0	3	13
Lysine	+	147.0	67.0	3	32
Methionine	+	150.1	133.0	3	12
Phenylalanine	+	166.1	103.0	3	30
Proline	+	116.1	70.1	3	13
Serine	+	106.0	60.0	3	15
Threonine	+	120.0	74.0	3	13
Tryptophan	+	205.0	146.0	3	18
Tyrosine	+	182.1	77.0	3	39
Valine	+	118.1	55.2	3	13

¹Abbreviations: Q1, precursor ion mass; Q2, product ion mass.

Supplemental Table 3. Primers used in RT-qPCR analysis.¹

mRNA	GenBank accession no.	Primers (5'-3')	Product size (bp)
Socs2	NM_007706	F: GCAGCCTTACTTCAGACACA R: GCACCTGTATAGCGTGACAT	99
Il6ra	NM_010559	F: CCAACCCGCTGTTTCCTATAA R: AGTGTTACAGGCTCATTCC	124
Rhobtb1	NM_001081347	F: TGAACCAGGAGATCACGAAAG R: GCTCCGTCATCCAAGGTAAG	109
Tmem100	NM_026433	F: GTTTAGGGAGTGTGGGAGATG R: CTTGCCAGGGCTCTCATTAT	99
GAPDH	NM_001289726	F: CATGGCCTTCCGTGTTCCCTA R: GCGGCACGTCAGATCCA	55

¹Abbreviations: F, forward; R, reverse.

Supplemental Table 4. Normal ranges of variables of liver and kidney function in the serum of C57BL/6 mice.¹

Variable	Normal range
Calcium	5.9 - 9.4 mg/dl
Total protein	3.6 – 6.6 g/dl
Albumin	2.5 – 4.8 g/dl
Alanine aminotransferase	28 - 132 U/l
Blood urea nitrogen	18 - 29 mg/dl
Creatinine	0.2 – 0.8 mg/dl

¹Abbreviation: U, enzyme activity.

Supplemental Table 5. Expected counts of differentially expressed genes (≥ 2 -fold change) in ERD vs. ERS males and females (n=3).

Gene	ERD-1	ERD-2	ERD-3	ERS-1	ERS-2	ERS-3
Females						
Rhobtb1	632	748	605	1509	1597	1268
Socs2	287	316	508	1061	1204	932
Lsm7	83	55	150	260	244	198
Rps27rt	474	433	256	162	178	100
Rpl28	0	35	54	0	0	0
Gm10221	737	1620	0	0	0	0
Tmem100	426	335	406	145	185	141
Csf2rb2	30	42	33	61	87	64
Gm10501	12	0	10	55	32	37
Gm826	40	47	31	17	5.6	19
Gm17971	2.2	3.9	3.7	18	30	19
Rpl36a	407	173	0	0	0	30
Males						
Ahsg	2.1	0	0	95	0	13
Glcc1	30	36	15	0	2.6	4.0
Fabp1	2.1	0	0	88	2.1	18
Rpl31	0	9.2	0	0	420	121
Gm14440	0	0	0	51	137	41
Gm20431	22	79	118	0	0	0
Gm5601	0	0	0	0	45	38
RP23	7.2	9.3	3.7	34	16	26
Umad1	17	0	1.5	52	40	38