

Table S1 related to STAR Methods section: Isocaloric diet composition (Research Diets Inc.)

Diet Formulas	Inulin containing diet (ICD)		Cellulose containing diet (CCD)		FOS containing diet (FCD)		Pectin containing diet (PCD)		High-fat diet-inulin (HFD-I)		High-fat diet-cellulose (HFD-C)	
Product #	D12081401		D12081402		D12081407		D12081403		D12081406		D09072902	
	gm%	kcal%	gm%	kcal%	gm %	kcal %	gm %	kcal%	gm%	kcal%	gm %	kcal%
Protein	19	20	18.5	20	19	20	19	20	26	20	25	20
Carbohydrate	67.8	65	61.8	65	60.8	63	63.4	65	26	20	25	20
Fat	6.5	15	6.4	15	6.5	15	6.5	15	34	60	33	60
Total		100		100		100		100		100		100
Kcal/gm	3.88		3.78		3.88		3.88		5.1		4.9	
Ingredient	g	Kcal	g	kcal	g	kcal	g	kcal	g	kcal	g	kcal
Casein, 30 Mesh	200	800	200	800	200	800	200	800	200	800	200	800
L-cysteine	3	12	3	12	3	12	3	12	3	12	3	12
Corn starch	381	1524	409	1636	381	1524	381	1524	0	0	0	0
Maltodextrin 10	110	440	110	440	110	440	110	440	97	388	125	500
Sucrose	150	600	150	600	150	600	150	600	68.8	275	68.8	275
Cellulose, BW200	25	0	100	0	25	0	25	0	25	0	100	0
Inulin (Orafti® HP)	75	113	0	0	0	0	0	0	75	113	0	0
Pectin (Citrus peel, Sigma)	0	0	0	0	0	0	75	112.5	0	0	0	0
FOS, P95	0	0	0	0	75	113	0	0	0	0	0	0
Soybean oil	70	630	70	630	70	630	70	630	25	225	25	225
Lard	0	0	0	0	0	0	0	0	245	2205	245	2205
Mineral Mix S10026	10	0	10	0	10	0	10	0	10	0	10	0
DiCalcium PO ₄	13	0	13	0	13	0	13	0	13	0	13	0
Calcium Carbonate	5.5	0	5.5	0	5.5	0	5.5	0	5.5	0	5.5	0
Potassium Citrate	16.5	0	16.5	0	16.5	0	16.5	0	16.5	0	16.5	0
Vitamin Mix V10001	10	40	10	40	10	40	10	40	10	40	10	40
Choline Bitartrate	2	0	2	0	2	0	2	0	2	0	2	0
FD&C Red dye #40	0.05	0	0	0	0	0	0.025	0	0.05	0	0.025	0
FD&C Blue dye #1	0	0	0.05	0	0.025	0	0.025	0	0	0	0	0
FD&C Yellow dye#5	0	0	0	0	0.025	0	0	0	0	0	0.025	0

FOS: Fructooligosaccharides

Table S2 related to Figure 1: Hematology profile after 24 weeks on inulin diet (Males: n=8)

Parameters	WT+ Inu	T5KO+ Inu-NB	T5KO+ Inu-HB
White blood cells ($10^3/\mu\text{L}$)	8.41 \pm 1.32	9.88 \pm 0.54	15.02 \pm 1.0*
Neutrophils ($10^3/\mu\text{L}$)	1.86 \pm 0.15	2.36 \pm 0.15	4.08 \pm 0.15*
Lymphocytes ($10^3/\mu\text{L}$)	6.18 \pm 0.8	7.3 \pm 0.41	10.55 \pm 0.95*
Monocytes ($10^3/\mu\text{L}$)	0.138 \pm 0.5	0.17 \pm 0.02	0.3 \pm 0.05
Eosinophils ($10^3/\mu\text{L}$)	0.00	0.04 \pm 0.02	0.07 \pm 0.03
RBC (M/μL)	11.06 \pm 0.37	10.21 \pm 0.11	9.68 \pm 0.13
Hb (g/dL)	15.01 \pm 0.4	14.10 \pm 0.14	14.44 \pm 0.22

* P<0.05

Table S3 related to STAR Methods section: List of primers

S. No.	Description	Forward (5'----3')	Reverse (5'----3')
1	<i>Nlrc4</i>	CGGCCTGCAACCTCTTTCTT	TGGGCCAAAACATTCAGGTCT
2	<i>Nlrp3</i>	TCCACAATTCTGACCCACAA	ACCTCACAGAGGGTCACCAC
3	<i>Tlr2</i>	AAGATGCGCTTCCTGAATTTG	TCCAGCGTCTGAGGAATGC
4	<i>Tlr4</i>	TGTTCTTCTCCTGCCTGACA	CATCAGGGACTTTGCTGAGTT
5	<i>Mcp-1</i>	ATCCCAATGAGTAGGCTGGAGAGC	CAGAAGTGCTTGAGGTGGTTGTG
6	<i>Tnf-α</i>	ACTCCAGGCGGTGCCTATGT	AGTGTGAGGGTCTGGGCCAT
7	<i>Il-6</i>	ACAACGATGATGCACTT	CTTGGTCCTTAGCCACT
8	<i>Il-17a</i>	TCATCCCTCAAAGCTCAGCG	TTTCCCTCCGCATTGACACA
9	<i>Cox2</i>	CAAGGGAGTCTGGAACATTG	ACCCAGGTCTCGCTTATGA
10	<i>Lcn2</i>	AAGGCAGCTTTACGATGTACAGC	CTTGACATTGTAGCTGTGTACC
11	<i>Kc</i>	TTGTGCGAAAAGAAGTGCAG	TACAAACACAGCCTCCCACA
12	<i>Il-1β</i>	TTGACGGACCCCAAAGATG	AGAAGGTGCTCATGTCTCAT
13	<i>Timp-1</i>	GTGCACAGTGTTCCTGTTT	TCCGTCCACAAACAGTGAGTGTC
14	<i>Timp-2</i>	GGATTCCGGGAATGACATCTAT	CGCCTTCCCTGCAATTAGATA
15	<i>Collagen 1</i>	CCTGGTAAAGATGGTGCC	CACCAGGTTACCTTTTCGCACC
16	<i>αSmc</i>	AGACCACCGCTCTTGTGTGT	GTCAGGATACCTCGCTTGCT
17	<i>Tgfb1</i>	CGCCATCTATGAGAAAACC	GTAACGCCAGGAATTGT
18	<i>Mmp-2</i>	GATAACCTGGATGCCGTCGTG	CTTACGCTCTTGAGACTTTGGTTC
19	<i>Mmp-9</i>	GCCCTGGAACACACGACA	TTGGAAACTCACACGCCAGAAG
20	<i>Gpc3</i>	GGTGACGGCATGATGAAAGTGAAG	TGGTGATCTCGTTGTCCTTCTGAT
21	<i>Ykl-40</i>	AGGCTTTGCGGTCTGAT	CCAGCTGGTGAAGTAGCAGA
22	<i>αSMA</i>	TGACGCTGAAGTATCCGATAGA	CGAAGCTCGTTATAGAAAGAGTGG
23	<i>Fmo3</i>	CACCACTGAAAAGCACGGTA	GTTTAAAGGCACCAAACCATAG
24	<i>36B4</i>	TCCAGGCTTTGGGCATCA	CTTTATTCAGCTGCACATCACTCAGA
25	HPRT	CTACGAATCTCCGACCACACTAC	GGCTTATCATCTTTCAACACGCAG
26	β -actin	TCATCACTATTGGCAACGAGCG	CGGATGTCAACGTCACACTTCA
27	<i>Fgfr1</i>	CAACCGTGTGACCAAAGTGG	TCCGACAGGTCTTCTCCG
28	<i>Fgfr4</i>	CTCGGAAAGCCCCTGGGTGA	AGCTTCATCACCTCCATCTCG
29	<i>Shp</i>	TCTGGAGCCTTGAGCTGGGT	GCCTTGGCTGGCTGGGTAC
30	<i>Hnf4α</i>	CAAGAGCTCCATGGTGTTTAAGG	GTGCCGAGGGACGATGTAGT
31	<i>Cyp7a1</i>	AGCAACTAAACAACCTGCCAGTAC TA	GTCCGGATATTCAAGGATGCA
32	<i>Cyp8b1</i>	TAGCCCTGTTAGAGTGTGTGTGAC	AGTCAGGATCTCTCCCTGAACTTG
33	<i>Cyp27a1</i>	GCCTTGACAAAGGAAGTACT	CGCAGGGTCTCCTTAATCACA
34	<i>Cyp7b1</i>	GAAAACCTTTCAAAGGCAACATGG	ACTGGAAAGGGTTCAGAACAAATG
35	<i>Slc10a1</i>	ATCTGACCAGCATTGAGGCTCT	CCGTCGTAGATTCTTGCTGT
36	<i>Slco1a1</i>	ACTCCATAATGCCCTTGG	TAATCGGGCCAACAATCTTC
37	<i>Slco1b2</i>	ACCAAACCTCAGCATCCAAGC	TAGCTGAATGAGAGGGCTGC
38	<i>Abcb11</i>	ACTAATGTTGGGATCCAGGGC	GGCTTTGTCCAGAGCAAGCTG

39	<i>Abcc2</i>	AGCAGGTGTTTCGTTGTGTGT	AGCCAAGTGCATAGGTAGAGAAT
40	<i>Abcc1</i>	GATGGCTCCGATCCACTCT	AGGTAGAAACAAGGCACCCA
41	<i>Abcc4</i>	GCCACATCCTCATACTCAA	CTCTGCTTCCTCGTTTTCT
42	<i>Abcc5</i>	GCCCTGGGTACAGAAGTGAC	TCTTGGCATTCCAACGATCT
43	<i>Fxr</i>	TGTGAGGGCTGCAAAGGTT	ACATCCCCATCTTGGAC
44	<i>Fgf15</i>	CCAACTGCTTCCTCCGAATCC	TACAGTCTTCCTCCGAGTAGC
45	<i>Asbt</i>	GGAAGTGGCTCCAATATCTG	TCCAATCACAGCTATGAGCAC
47	<i>Ostα</i>	GCCAGGCAGGACTCATATCAA	GGCAACTGAGCCAGTGGTAAGA
48	<i>Ostβ</i>	GACAAGCATGTTCTCCTGAG	GATGCAGGTCTTCTGGTGTTC
Bacteria quantification primer			
49	16S rRNA	8F: AGAGTTTGATCCTGGCTCAG	338R:CTGCTGCCTCCCGTAGGAGT
50	γ Proteobacteria	1080 γ F: TCGTCAGCTCGTGTGTGA	γ 1202 R: CGTAAGGGCCATGATG