

Dietary fibre directs microbial tryptophan metabolism via metabolic interactions in the gut microbiota

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authors and unedited

The supplementary data file includes

Supplementary tables

- Supplementary Table 1. Diet formula for *in vivo* experiments
- Supplementary Table 2. List of RT-qPCR primers

Supplementary Table 1-Diet formula for *in vivo* experiments

Ingredients	Diet 1	Diet 2	Diet 3	Diet 4
	A22033102-1.5V (Normal Trp + Pectin)	A18041301R-1.5V (Normal Trp)	A22033103-1.5V (High Trp + Pectin)	A22033101-1.5V (High Trp)
Total L-amino acids (g)	177.1	177.1	191	191
<i>L</i> -Arginine (g)	5.9	5.9	5.9	5.9
<i>L</i> -Histidine-HCl-H ₂ O (g)	4.5	4.5	4.5	4.5
<i>L</i> -Isoleucine (g)	7.5	7.5	7.5	7.5
<i>L</i> -Leucine (g)	15.7	15.7	15.7	15.7
<i>L</i> -Lysine-HCl (g)	13.1	13.1	13.1	13.1
<i>L</i> -Methionine (g)	5	5	5	5
<i>L</i> -Phenylalanine (g)	8.4	8.4	8.4	8.4
<i>L</i> -Threonine (g)	7.1	7.1	7.1	7.1
<i>L</i>-Tryptophan (g)	2.1	2.1	16	16
<i>L</i> -Valine (g)	9.2	9.2	9.2	9.2
<i>L</i> -Alanine (g)	5	5	5	5
<i>L</i> -Asparagine-H ₂ O (g)	7	7	7	7
<i>L</i> -Aspartic acid (g)	5	5	5	5
<i>L</i> -Cystine (g)	4.2	4.2	4.2	4.2
<i>L</i> -Glutamic acid (g)	20.7	20.7	20.7	20.7
<i>L</i> -Glutamine (g)	17.1	17.1	17.1	17.1
Glycine (g)	3	3	3	3
<i>L</i> -Proline (g)	17.6	17.6	17.6	17.6
<i>L</i> -Serine (g)	9.9	9.9	9.9	9.9
<i>L</i> -Tyrosine (g)	9.1	9.1	9.1	9.1
Corn Starch (g)	372.486	397.486	358.586	383.586
Maltodextrin 10 (g)	132	132	132	132
Sucrose (g)	102.0777	102.0777	102.0777	102.0777
Cellulose (g)	50	50	50	50
Pectin (g)	50	0	50	0
Soybean Oil (g)	70	70	70	70
t-butylhydroquinone (g)	0.014	0.014	0.014	0.014
Mineral S10022G (g)	0	0	0	0
Mineral S10022C (g)	3.5	3.5	3.5	3.5
Calcium Carbonate (g)	7.34	7.34	7.34	7.34
Potassium Citrate, 1xH ₂ O (g)	2.4773	2.4773	2.4773	2.4773
Potassium Monobasic (g)	6.86	6.86	6.86	6.86
Calcium Phosphate, dibasic (g)	7	7	7	7
Sodium Chloride (g)	2.59	2.59	2.59	2.59
Sodium Bicarbonate (g)	7.5	7.5	7.5	7.5
Vitamin Mix V10037 (g)	15	15	15	15
Choline Bitartrate (g)	2.5	2.5	2.5	2.5
Dye Red (g)	0	0.05	0	0
Dye Yellow (g)	0	0	0.025	0.05
Dye Blue (g)	0.05	0	0.025	0
Total (g)	1008.495	983.495	1008.495	983.495

	Diet 1	Diet 2	Diet 3	Diet 4
Calories (kcal)	3925	3925	3925	3925
Tryptophan (g/kg)	2.08231077	2.135242172	15.86522491	16.26851179
Pectin (g/kg)	49.57882786	0	49.57882786	0
Tryptophan %	0.000535032	0.000535032	0.004076433	0.004076433
Pectin %	0.012738854	0	0.012738854	0

Supplementary Table 2-List of RT-qPCR primers

Name	Sequence (5' - 3')	Gene
<i>Escherichia coli</i> MG1655 (NCBI Reference Sequence: NC_000913.3)		
Ec_tnaA_qPCR-F	GACTGGCTGGCTTATCGTATC	tnaA
Ec_tnaA_qPCR-R	GTTTACCGGCATCAACGAATG	
Ec_araA_qPCR-F1	CATCTCGGTATTGGTGGTAAGG	araA
Ec_araA_qPCR-R1	TGTCGATGCAGTTAACCAGTAG	
Ec_araF_qPCR-F2	ATTGGCTGATCGTCGGTATG	araF
Ec_araF_qPCR-R2	TGCTTTAGACAGTTCGCTCAC	
Ec_rhaA_qPCR-F2	GATGAGGTGATCAGCGAGAAG	rhaA
Ec_rhaA_qPCR-R2	ATTGGAGCCAACCGTGTAG	
Ec_rhaT_qPCR-F2	TACGCTGATGACGCCAATTATC	rhaT
Ec_rhaT_qPCR-R2	GAGTTACAATCCCTACGCCAATC	
Ec_xylA_qPCR-F1	GCTACTGGCACACCTTCTG	xylA
Ec_xylA_qPCR-R1	CTCAAATGCGACATCTGCTTTAC	
Ec_xylG_qPCR-F1	AGGTATCGCCATCATTATCAG	xylG
Ec_xylG_qPCR-R1	CGTAGCGTCATCAGGTCATAATC	
Ec_dnaG_qPCR-F	GAAGGCTATATGGACGTGGTG	dnaG
Ec_dnaG_qPCR-R	CGCCGTCATAACAGCAAATG	
Ec_gyrA_qPCR-F2	GTGACAAACGTCGTAAGTAAATC	gyrA
Ec_gyrA_qPCR-R2	GATACTTAACGTAGCCCTGGTG	
Ec_secA_qPCR-F2	GCTGGTTCTTCCCGTTTCTAC	secA
Ec_secA_qPCR-R2	CCTGGCTTCATACCCAGTTTAC	
<i>Bacteroides thetaiotaomicron</i> DSM 2079 (NCBI Reference Sequence: NC_004663.1)		
Bt_tnaA_qPCR-F	GATGCTGGGTGATGAAAGTTATG	tnaA (BT_RS07555)
Bt_tnaA_qPCR-R	CGTCCTTGATGGGTAGGAATG	
Bt_gyrA_qPCR-F	CGTGGGTGAAGTATTGGGTAAG	gyrA
Bt_gyrA_qPCR-R	GGGCTATCACCATCTACAGAAC	
Bt_dnaG_qPCR-F	CTTCGCCCCGAAACATAATTC	dnaG
Bt_dnaG_qPCR-R	CGTTTGATCGGATCTCTTCCC	
Bt_secA_qPCR-F	CGATGAGGTTGACTCGGTATTG	secA
Bt_secA_qPCR-R	GAGCTTCTACCAGACGTTCTAC	