

Supplementary Table S1. Antibodies information used in the study

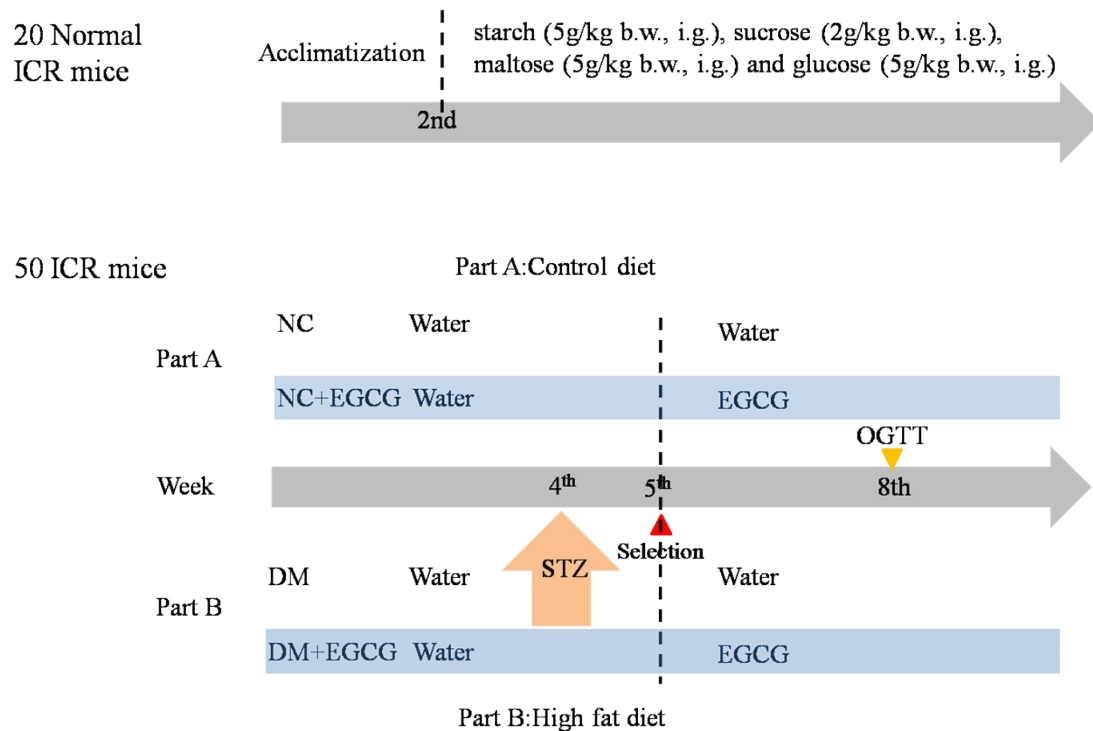
Antibody	Catalogue	Company
CAR	21042-1-AP	Protein Tech
PXR	15607-1-AP	Protein Tech
SULT1A1	10911-2-AP	Protein Tech
UGT1A1	SC-271268	Santa Cruz
PEPCK	Sc-377027	Santa Cruz
G-6-Pase	Sc-398155	Protein Tech
Nrf2	16396-1-AP	Protein Tech
Keap-1	10503-2-AP	Protein Tech
SREBP-1	SC-365513	Santa Cruz
GLUT2	20436-1-AP	Protein Tech
GAPDH	60004-1-Ig	Protein Tech
$\beta$ -actin	BM0627	Boster Biological Tech

Supplementary Table S2. Composition of the normal chow diet and high-fat diet

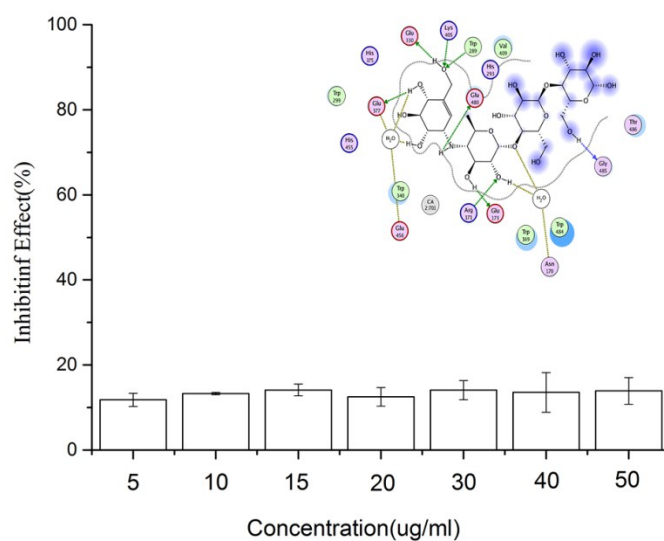
	High fat diet (TP23000)	normal chow diet (TP23302)
Casein	240	191.2
Corn starch	73	496.7
Maltodextrin	120	112.3
Sucrose	203	63.8
Soybean oil	30	23.9
Lard	196	16.1
Cellulose	60	47.8
Mineral mix M1020	59	35.7
Vitamin V1010	12	7.3
L-cystine	4	2.87
Choline Bitartrate	3	2.39
TBHQ	0.045	0.008
Total content	1000	1000
Protein	19.4%	19%
Fat	45%	10%
Carbohydrate	35.6%	71%
Total energy	4.5 kCal/g	3.6 kCal/g

Supplementary Table S3. Sequences of the primers

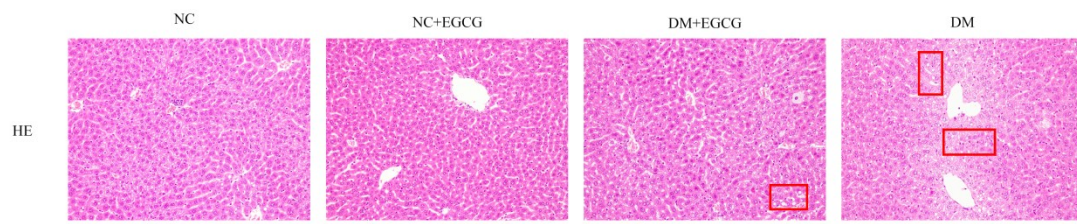
Name	Primer	Sequence	Size
$\beta$ -actin	Forward	5'- CACGATGGAGGGGCCGACTCATC - 3'	240bp
	Reverse	5'- TAAAGACCTCTATGCCAACACAGT -3	
Mus CAR	Forward	5'- CTCTCCGGTCCCTAACC-3'	148bp
	Reverse	5'- CTGCGTCCCTCCATCTTGT-3'	
Mus PXR	Forward	5'- CTTCAAATCTGCCGTGTATG-3'	169bp
	Reverse	5'- ACTGCCGTCGTGTCTTCC-3'	
Mus G-6-P	Forward	5'- TCTTCCTGTTTGCCCTCG-3	231bp
	Reverse	5'- TCGGCTTGGTGCCATTTT-3	
Mus PEPCK	Forward	5'-TCATCATCACCCAAGAGCA-3	225bp
	Reverse	5'-CCACCACATAGGGCGAGT-3	
Mus SULT1A1	Forward	5'- CCCACGGATCATTAAGAC-3'	213bp
	Reverse	5'- CACGACCCATAGGACACT-3'	
Mus UGT1A1	Forward	5'- CTTGGACGGACTGCCTTTA-3'	118bp
	Reverse	5'- CATTGTGCAGCAGGTGGG-3'	
Mus SULT2B1b	Forward	5'-CATGTCCAATACTCGCTGC -3	197bp
	Reverse	5'-CAGGGCTGCTATCCTCTTC -3	
Mus SREBP1c	Forward	5'-CCCACCTCAAACCTGGATCT-3	229bp
	Reverse	5'-AAGCAGCAAGATGTCCTCCT-3	
Mus ACC	Forward	5'- AAAGGCTATGTGAAGGATG-3	144bp
	Reverse	5'- TCTGAAGAGGTTAGGGAAG-3	
Mus FAS	Forward	5'- GCCTCCGTGGACCTTATC-3	183bp
	Reverse	5'- ACCCAAGTCCTCGCCATA-3	
Mus PGC1 $\alpha$	Forward	5'-GGAGTCTGAAAGGGCCAAAC -3	180bp
	Reverse	5'-TAGCTGTCTCCATCATCCCG -3	
Mus CREB	Forward	5'-GCTGGCTAACAATGGTACGG -3	230bp
	Reverse	5'-CCATAACAACCTCCAGGGGCA -3	
Mus CD36	Forward	5'-AGCCTTCACTGTCTGTTGGA-3	192bp
	Reverse	5'-GGAATGGATCTTTGTAACCCCA -3	
Mus PPAR $\gamma$	Forward	5'- TGCCAGTTTCGATCCGTAGA-3	187bp
	Reverse	5'- ATCCTTGGCCCTCTGAGATG-3	



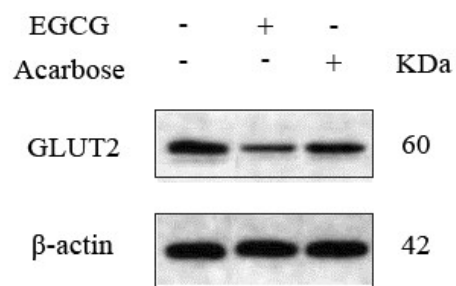
Supplementary Figure 1. Scheme of the study design describing several groups of animals.



Supplementary Figure 2. The inhibitory effect of acarbose on  $\alpha$ -glucosidase



Supplementary Figure 3 The histology of liver(HE staining)



Supplementary Figure 4. EGCG inhibit GLUT2 translocation after 10min administration of glucose in small intestine.