Supplementary Information (SI) for Food & Function.
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Supplementary material

Oral exposure to ovalbumin alters glucose metabolism in sensitized mice: upregulation of HIF-1α-mediated glycolysis

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Table S1. The primer sequences used for quantitative real-time PCR analysis.

Gene name	Primer	Sequence (5'-3')
Ldha	Forward	TGTCTCCAGCAAAGACTACTGT
	Reverse	GACTGTACTTGACAATGTTGGGA
Pfkl	Forward	GAACTACGCACACTTGACCAT
	Reverse	CTCCAAAACAAAGGTCCTCTGG
Pgam1	Forward	AGCGACACTATGGCGGTCT
	Reverse	TGGGACATCATAAGATCGTCTCC
Pfkp	Forward	GAAACATGAGGCGTTCTGTGT
	Reverse	CCCGGCACATTGTTGGAGA
Hkdc1	Forward	GGAATGGCACGGAGCTTTTTG
	Reverse	ACCCTCCTCCAACTTATTCTGT
Hif1a	Forward	ACCTTCATCGGAAACTCCAAAG
	Reverse	ACTGTTAGGCTCAGGTGAACT
GATA3	Forward	TTATCAAGCCCAAGCGAAG
	Reverse	CCATTAGCGTTCCTCCTCCA
T-bet	Forward	CTGCCTACCAGAACGCAGA
	Reverse	AAACGGCTGGGAACAGGA
β-actin	Forward	GTGACGTTGACATCCGTAAAGA
	Reverse	GCCGGACTCATCGTACTCC

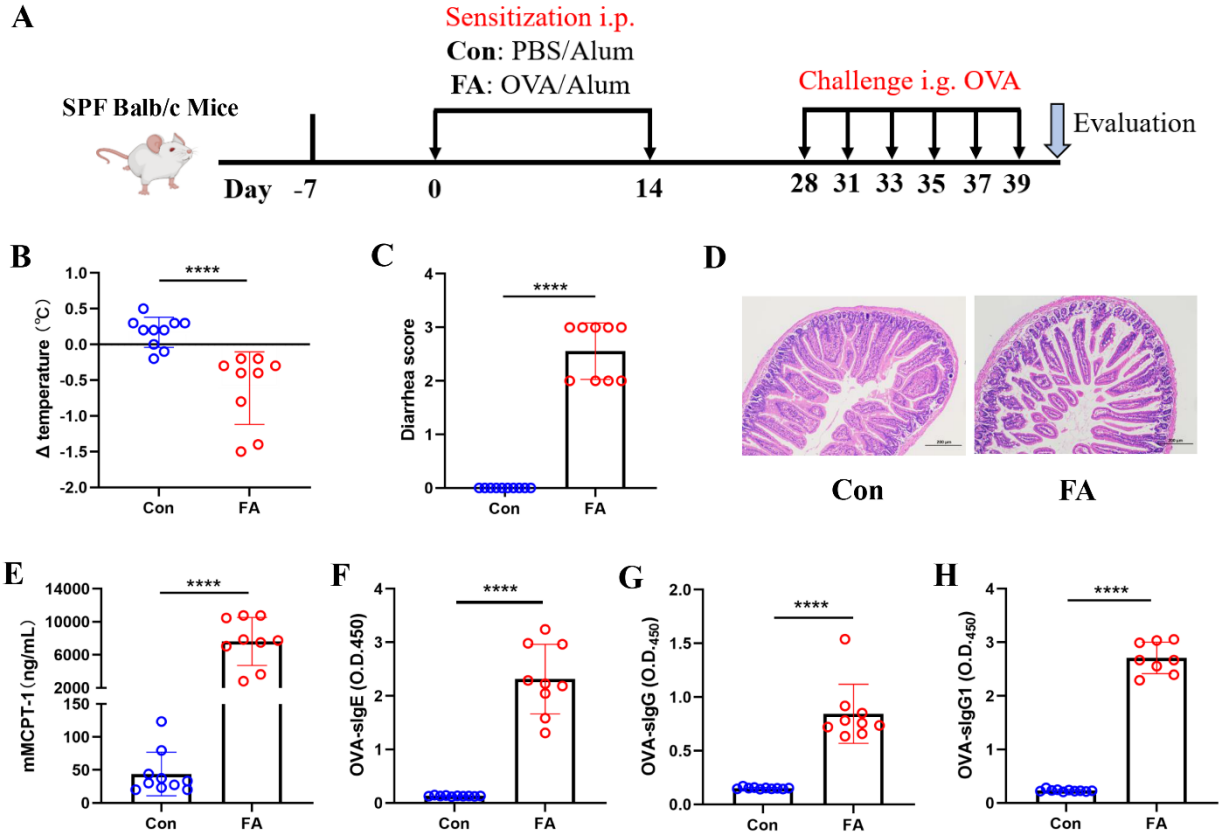

Figure S1. **Oral OVA challenges induced allergic reactions in sensitized mice.** (A) Experimental protocol of sensitization and challenge. i.g., intragastric gavage. i.p., intraperitoneal injection. (B) The body temperature change after the sixth oral challenge with OVA. (C) Diarrhea score of mice after the sixth challenge. (D) H&E staining of the jejunum sections. (E) The levels of mMCPT-1 in serum. (F-H) The levels of OVA-specific IgE, IgG and IgG1 in serum. Data are represented as means ± SD. ****$p <$ 0.0001 using Mann-Whitney *U* test or Student's *t* test.

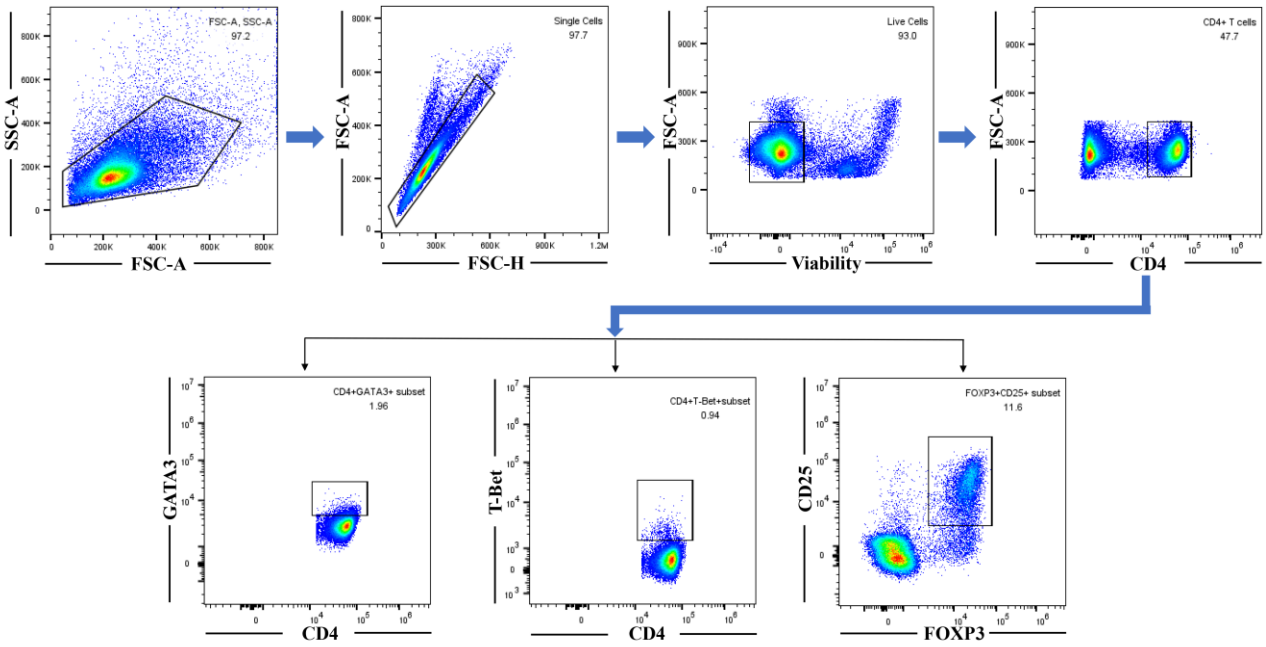

Figure S2. The gating strategy of T cell subsets in mesenteric lymph node.

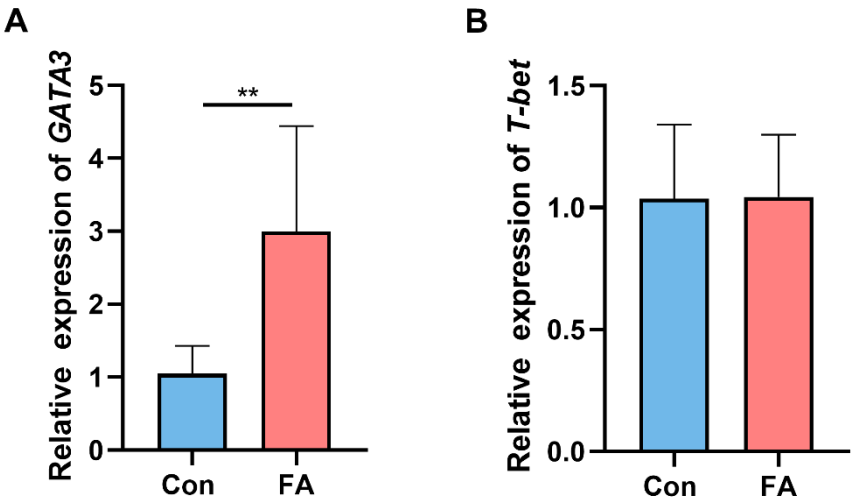

Figure S3. The gene expression of GATA3 and T-bet in the jejunum measured by RT-qPCR. Data are represented as means ± SD. $^{**}p < 0.01$ using Student's *t* test.

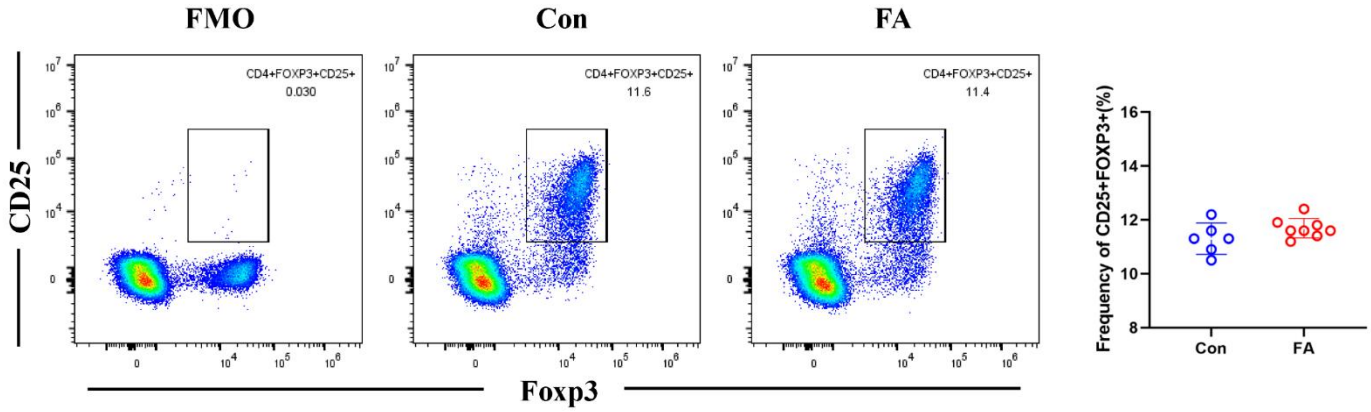

Figure S4. Flow cytometry analysis and frequency of $CD4^{+}FOXP3^{+}CD25^{+}$ T cells subset in mesenteric lymph node (MLN).

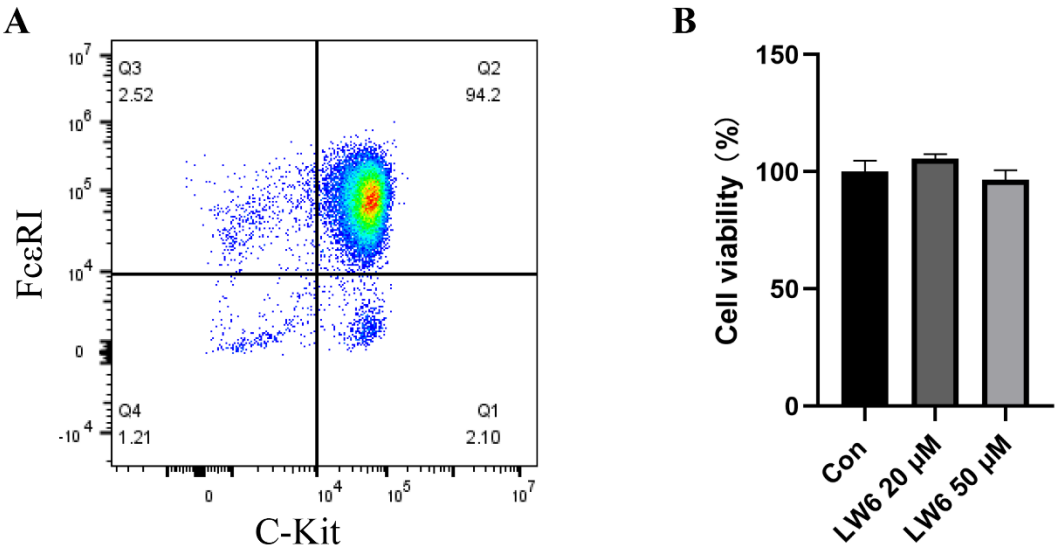

Figure S5. (A) Flow cytometric analysis of bone marrow-derived mast cells identified by $Fc\varepsilon RI^{+}CD117^{+}$ cells and (B) the effect of LW6 treatment on the cell viability of mast cells.