

**Supplementary Table 1. Expression profiling of candidate genes involved in insulin pathway.**

Gene symbol	Flybase Idx	Expression level based on FPKM (High fat diet)	Expression level based on FPKM (Control diet)	Fold-change
DILP2	FBgn0036046	9.76	50.32	-2.36
DILP3	FBgn0044050	12.34	9.32	0.40
DILP6	FBgn0044047	129.63	32.76	1.98
DILP7	FBgn0044046	2.73	9.37	-1.77
DILP8	FBgn0036690	17.88	12.76	0.49
Chico	FBgn0024248	173.48	230.87	-0.41
InR	FBgn0013984	283.45	784.82	-1.47
Pten	FBgn0026379	78.32	140.87	-0.84