Exogenous Natural EPA-enriched phosphatidylcholine and phosphatidylethanolamine ameliorate Lipid Accumulation and Insulin Resistance via Activation of PPARα/γ in mice

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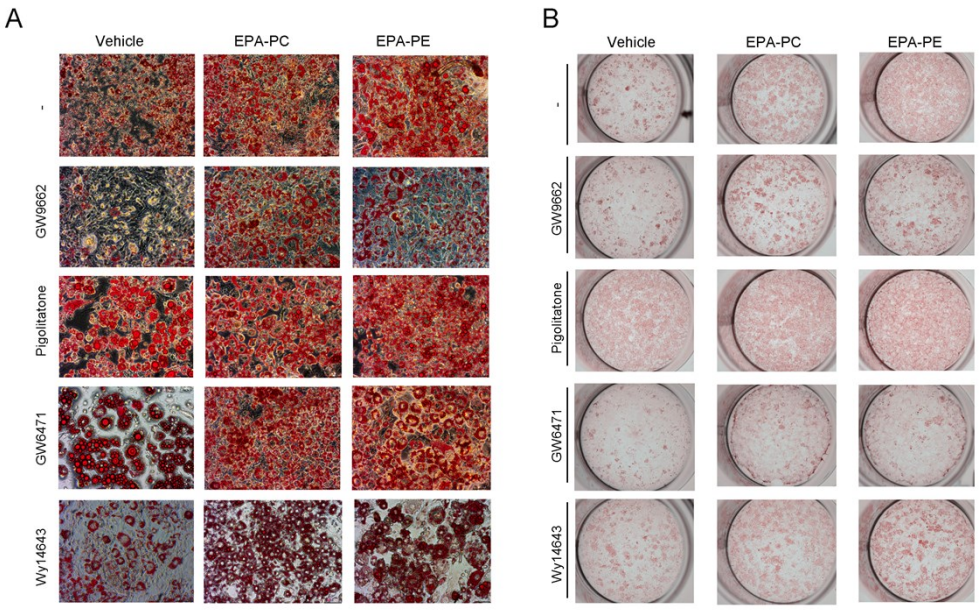

Fig. S1 EPA-PC and EPA-PE alter adipocytes differentiation and lipid accumulation by PPARα/γ. (A) Lipid accumulation was examined by oil red O staining with or without MDI cocktail-treatment, and (B) cells was dissolved by isopropanol and measured at 570 nm to quantify the effect on adipocyte differentiation.

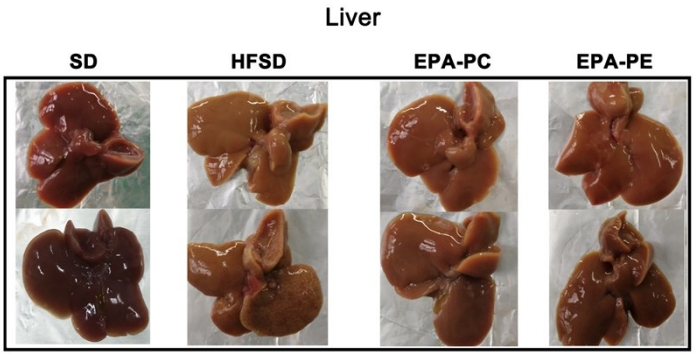

Fig. S2 The representative images of liver in mice fed with HFSD or EPA-PC, EPA-PE.

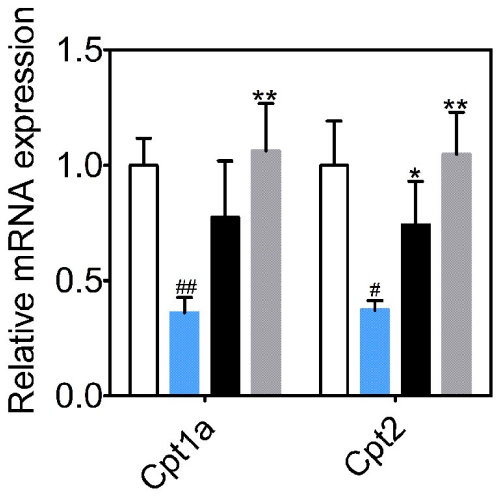

Fig. S3 EPA-PC and EPA-PE activated PPARα transcription in iWAT. Mice was treated with HFSD, or HFSD with supplementation of EPA-PC or EPA-PE for 12 weeks. The mRNA expression of *Cpt1a* and *Cpt2* in iWAT tissues were measured.

Table 1 Primer sequences used for Quantitative Real-Time PCR

Gene	Primer (5'-3')	Sequences
Pparα	Forward	AGACCGTCACGGAGCTCACA
	Reverse	GGCCTGCCATCTCAGGAAAG
Cpt1	Forword	CATGTCAAGCCAGACGAAGA
	Reverse	TGGTAGGAGAGCAGCACCTT
Cpt2	Forword	GCTCCGAGGCATTTGTCA
	Reverse	CCCATCGCTGCTTCTTTG
Acox	Forword	GTATAAACTCTTCCCGCTCCTG
	Reverse	CCAGGTAGTAAAAGCCTTCAGC
Fas	Forword	CAGCCATGGAGGAGGTGGTGATT
	Reverse	CGAAGAAGGAGGCATCAAACCTA
Pparγ	Forword	TGGGTGAAACTCTGGGAGAT
	Reverse	CCATAGTGGAAGCCTGATGC
Lpl	Forword	ATCGGAGAACTGCTCATGATGA
	Reverse	CGGATCCTCTCGATGACGAA
FABP4	Forword	CATGGCCAAGCCCAACAT
	Reverse	CGCCCAGTTTGAAGGAAATC
Cebpα	Forword	GTGCTGGAGTTGACCAGTGA
	Reverse	CCAAGGAGCTCTCAGGCAG
Scd1	Forword	GCCCCTCTACTTGGAAGACGA
	Reverse	AAGTGATCCCATACAGGGCTC
Cd36	Forword	GGAGCCATCTTTGAGCCTTCA
	Reverse	GAACCAAACTGAGGAATGGATCT
Ucp1	Forword	AACTGTACAGCGGTCTGCCT
	Reverse	TAAGCCGGCTGAGATCTTGT
Pgc-1α	Forword	AATGCAGCGGTCTTAGCACT
	Reverse	TGTTGACAAATGCTCTTCGC
Prdm16	Forword	TGGGCTCACTACCCTACCAC
	Reverse	GACTTTGGCTCAGCCTTGAC
Dio2	Forword	ACACTGGAATTGGGAGCATC
	Reverse	ATGCTGACCTCAGAAGGGCT