hDGAT2

모델명	C57BL/6Smoc-*Dgat2*$^{tm1(hDGAT2)Smoc}$
카탈로그	NM-HU-233515
모델 상태	Sperm cryopreservation

유전자 요약

Gene Symbol Dgat2	**Synonyms**	ARAT; DGAT-2; 0610010B06Rik
	NCBI ID	67800
	MGI ID	1915050
	Ensembl ID	ENSMUSG00000030747
	Human Ortholog	DGAT2

모델 설명

The endogenous mouse Dgat2 gene was replaced by human DGAT2 gene.
*Literature published using this strain should indicate: hDGAT2 mice (Cat. NO. NM-HU-233515) were purchased from Shanghai Model Organisms Center, Inc..

검증 데이터

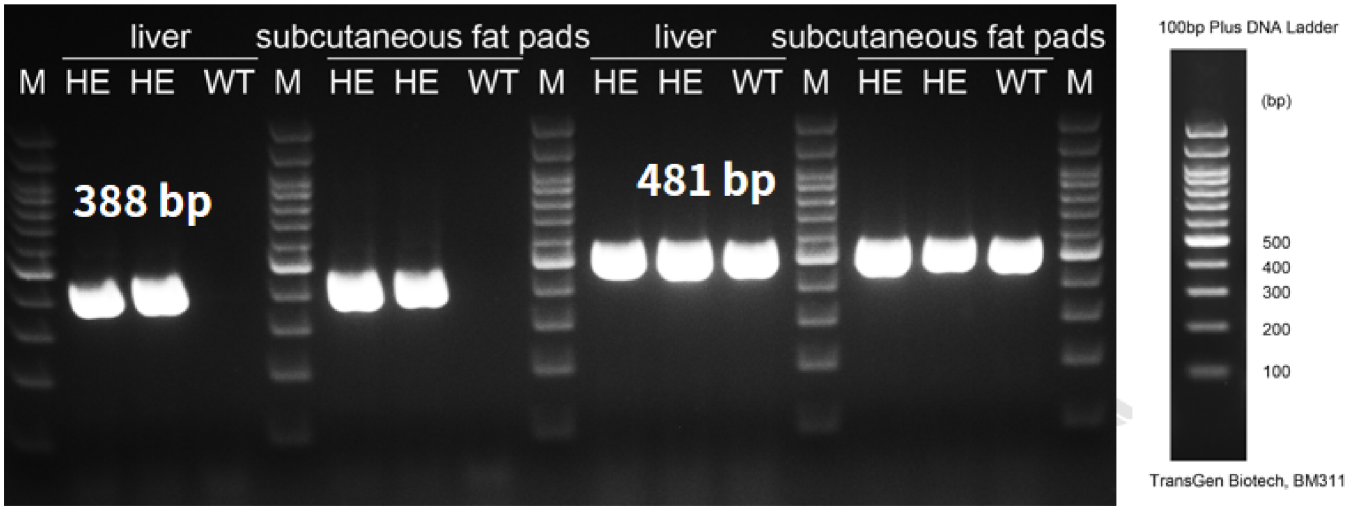

Fig.1 Detection of DGAT2 expression in the liver and subcutaneous fat pad by RT-PCR.

Wild type: only one band at 481 bp with primers F1/R1(m*Dgat2*);

Heterozygous: one band at 481 bp with primers F1/R1(m*Dgat2*) and one band at 388 bp with primers F2/R2(h*DGAT2*).

Abbr. M, DNA marker; HE, heterozygous; WT, wild type.

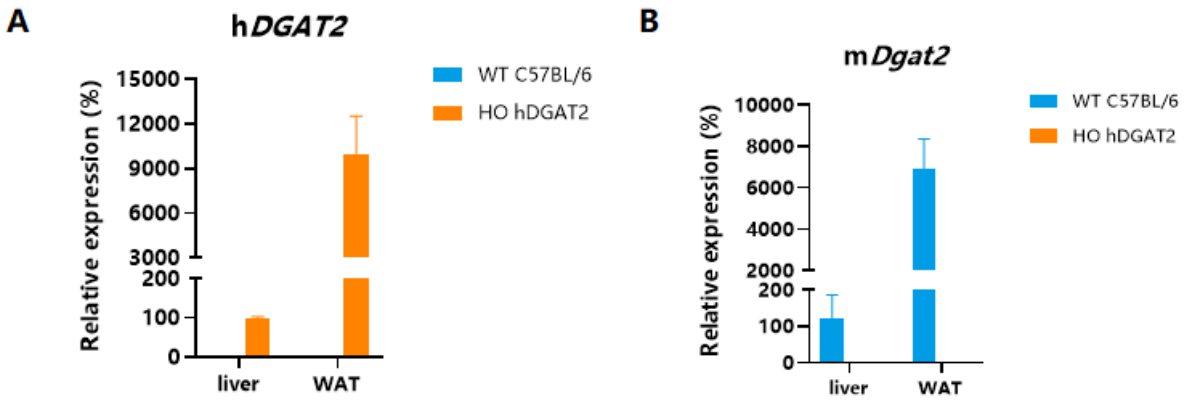

Fig.2 Detection of human DGAT2(A) and mouse Dgat2(B) mRNA expression in liver and WAT by qPCR.

A: Relative expression was reported as the percentage to human DGAT2 mRNA levels in the liver of hDGAT2 knockin mice (n=2, male, 9-week-old).

B: Relative expression was reported as the percentage to mouse Dgat2 mRNA levels in the liver of WT C57BL/6 mice (n=2, male, 9-week-old).

Abbr. M, DNA marker; HO, homozygous; WT, wild type.

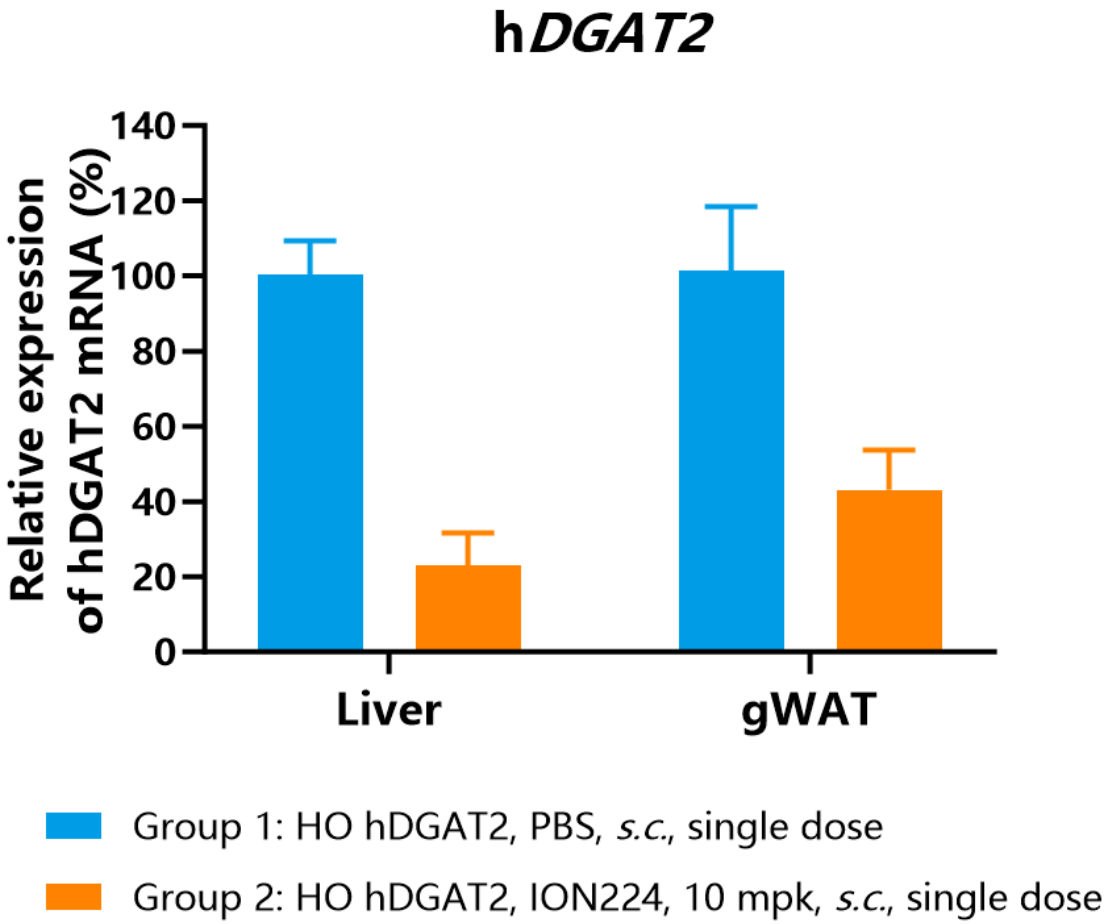

Fig.3 Detection of human DGAT2 mRNA knockdown in liver and gWAT by qPCR. Female mice (8–9 weeks old) were assigned to three groups (n=2 per group). Homozygous hDGAT2 (HO) mice received a single subcutaneous injection of PBS (Groups 1), while HO mice in Group 2 were administered a single subcutaneous dose of ION224, a GalNAC-conjugated ASO drug (10 mg/kg). At 15 days post-dosing, liver and gonadal white adipose tissue (gWAT) were harvested to quantify human *DGAT2* mRNA levels. Data were normalized to mouse *GAPDH* mRNA levels. Results demonstrated that ION224 significantly reduced human *DGAT2* mRNA expression by 80% in the liver and approximately 50% in the gWAT compared to the PBS-treated HO group.

Abbr. HO, homozygous.