

#14937 Store at -20°C

AGPAT2 (D8W9B) Rabbit mAb**Cell Signaling**
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	27	Rabbit IgG	#O15120	10555

Product Usage Information**Application**Western Blotting
Immunoprecipitation**Dilution**1:1000
1:200**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

AGPAT2 (D8W9B) Rabbit mAb recognizes endogenous levels of total AGPAT2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly235 of human AGPAT2 protein.

Background

The 1-acylglycerol-3-phosphate-O-acyltransferase 2 enzyme (AGPAT2) catalyzes the acylation of lysophosphatidic acid (LPA) into phosphatidic acid (PA), which is a precursor for the synthesis of triacylglycerol and phospholipid (1,2). AGPAT2 is highly expressed in adipose tissues, liver, and skeletal muscle (3). The induced knockdown of AGPAT2 expression results in decreased expression of adipogenic proteins and delayed expression of adipogenic marker proteins, suggesting that AGPAT2 plays an important role in adipocyte growth and differentiation (4). Mutations in the corresponding *AGPAT2* gene cause autosomal recessive congenital generalized lipodystrophy type 1 (CGL1), also described as Berardinelli-Seip syndrome. Patients with CGL1 are born without detectable white adipose tissue and tend to develop severe insulin resistance, hypertriglyceridemia, and type 2 diabetes during childhood (5,6).

Background References

1. Yamashita, A. et al. (2014) *Biology (Basel)* 3, 801-30.
2. Agarwal, A.K. et al. (2011) *J Biol Chem* 286, 37676-91.
3. Leung, D.W. (2001) *Front Biosci* 6, D944-53.
4. Gale, S.E. et al. (2006) *J Biol Chem* 281, 11082-9.
5. Agarwal, A.K. et al. (2002) *Nat Genet* 31, 21-3.
6. Subauste, A.R. et al. (2012) *Diabetes* 61, 2922-31.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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