

Anti-LPIN1 antibody



Description Unconjugated Rabbit polyclonal to LPIN1

Model STJ192055

Host Rabbit

Reactivity Human, Mouse

Applications ELISA, WB

Gene ID <u>23175</u>

Gene Symbol <u>LPIN1</u>

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity LPIN1 Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity Specifically expressed in skeletal muscle. Also abundant in adipose tissue.

Lower levels in some portions of the digestive tract.

Purification LPIN1 antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Phosphatidate phosphatase LPIN1 Lipin-1

Molecular Weight 97 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:13345OMIM:268200</u>

Alternative Names Phosphatidate phosphatase LPIN1 Lipin-1

Function Plays important roles in controlling the metabolism of fatty acids at different

levels. Acts as a magnesium-dependent phosphatidate phosphatase enzyme which catalyzes the conversion of phosphatidic acid to diacylglycerol during triglyceride, phosphatidylcholine and phosphatidylethanolamine biosynthesis in the reticulum endoplasmic membrane. Acts also as a nuclear transcriptional coactivator for PPARGC1A/PPARA to modulate lipid metabolism gene expression . Is involved in adipocyte differentiation. May also be involved in mitochondrial fission by converting phosphatidic acid to diacylglycerol .

Sequence and Domain Family Contains one Leu-Xaa-Xaa-Ile-Leu (LXXIL), a transcriptional binding motif,

which mediates interaction with PPARA. Contains 1 Asp-Xaa-Asp-Xaa-Thr (DXDXT) motif, a catalytic motif essential for phosphatidate phosphatase

activity.

Cellular Localization Nucleus membrane Cytoplasm, cytosol Endoplasmic reticulum membrane

Post-translational Phosphorylated at multiple sites in response to insulin. Phosphorylation is **Modifications** controlled by the mTOR signaling pathway. Phosphorylation is decreased by

epinephrine. Phosphorylation may not directly affect the catalytic activity but may regulate the localization. Dephosphorylated by the CTDNEP1-CNEP1R1

complex . Sumoylated.

St John's Laboratory Ltd

F +44 (0)207 681 2580

T +44 (0)208 223 3081

W http://www.stjohnslabs.com/ E info@stjohnslabs.com