Lipin 1 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

<table>
<thead>
<tr>
<th>Applications:</th>
<th>Reactivity:</th>
<th>Sensitivity:</th>
<th>MW (kDa):</th>
<th>Source:</th>
<th>UniProt ID:</th>
<th>Entrez-Gene Id:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB, IP, IF-IC</td>
<td>H M</td>
<td>Endogenous</td>
<td>130</td>
<td>Rabbit</td>
<td>#Q14693</td>
<td>23175</td>
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</table>

**Product Usage Information**

**Application**
- Western Blotting
- Immunoprecipitation
- Immunofluorescence (Immunocytochemistry)

**Dilution**
- 1:1000
- 1:50
- 1:50

**Storage**

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

**Specificity / Sensitivity**

Lipin 1 Antibody detects endogenous levels of total Lipin 1 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln883 of human Lipin 1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Lipin 1 was identified as a nuclear protein required for adipose tissue development (1). The expression of Lipin 1 is induced during adipocyte differentiation (1). The abnormal development of adipose tissues caused by mutations in the lipin 1 gene results in lipodystrophy, a condition associated with low body fat, fatty liver, hypertriglyceridemia, and insulin resistance (1). Lipin 1 plays a role in lipid metabolism in various tissues and cell types including liver, muscle, adipose tissues, and neuronal cell lines (2-4). It has dual functions at the molecular level: Lipin 1 serves as a transcriptional coactivator in liver, and a phosphatidate phosphatase in triglyceride and phospholipid biosynthesis pathways (5). Lipin 1 is regulated by mTOR, illustrating a connection between adipocyte development and nutrient-sensing pathways (6). It also mediates hepatic insulin signaling by TORC2/CRTC2 (7).

**Background References**


**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
- IF-IC: Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

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

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