

Lysophospholipid Phosphatase (LPP) 2. Rabbit Polyclonal Antibody, Human

BACKGROUND

Phosphatidic acid phosphatase type 2 (PAP2) was originally identified as a plasma membrane enzyme that catalyses the dephosphorylation of the putative second messenger, phosphatidic acid (PA) to diacylglycerol (DG) [1]. Subsequently, multiple isoforms of PAP2 were cloned [2-5]. It was found that these enzymes dephosphorylate a number of lipid phosphates *in vitro* other than PA, including the potent bioactive lipids, lysophosphatidic acid (LPA) and sphingosine 1-phosphate (S1P). Therefore, they have been renamed lipid phosphate phosphatases (LPPs). Currently, there are four members of this family called LPP1, LPP1a, LPP2 and LPP3 [6].

S1P [7] and LPA [8] regulate the proliferation, differentiation, apoptosis and migration of cells by binding to a family of G protein-coupled receptors. Thus, EDG1/S1P1, EDG3/S1P3, EDG5/S1P2/AGR16/H218, EDG6/S1P4 and EDG8/S1P5/nrg-1 are high affinity S1P receptors [7] whereas EDG2/LPA1, EDG4/LPA2 and EDG7/LPA3 have high affinity for LPA [8].

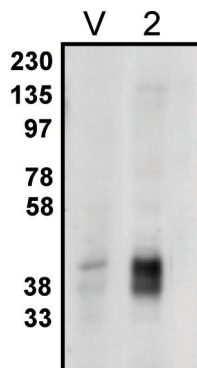
Recently, the over-expression of LPP1 was shown to limit LPA-stimulated signalling in Rat2 fibroblasts [9] and LPA-stimulated DNA synthesis in HEK 293 cells [10]. Similarly, over-expression of LPP1, LPP1a and LPP2 attenuate S1P-signalling to the p42/p44 mitogen activated protein kinase cascade [11].

IMMUNOGEN

Unique peptide derived from the human lysophospholipid phosphatase 2 protein.

Legend:

Western blot analysis using LPP2 antibody on vector-controlled HEK-293 cells (V) and HEK-293 cells overexpressing LPP2 protein (2) at 1 µg/ml



ORDERING INFORMATION

CATALOG NUMBER
X1528P

SIZE
100 µg

FORM
Purified

HOST/CLONE
Rabbit

FORMULATION
Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION
1 mg/ml

ISOTYPE
Polyclonal

APPLICATIONS
Western Blotting

SPECIES REACTIVITY

Human

POSITIVE CONTROL

Transfected HEK-293 cells

COMMENTS

This antibody can be used for Western blotting (10-15 µg/ml). Optimal concentration should be evaluated by serial dilutions. **NOTE:** Boiling LPP2 with sample buffer will aggregate the protein. Lysates should be prepared by mixing cells with lysis buffer (possibly with extra detergent) to solubilize the protein before adding sample buffer and lysate **SHOULD NOT** be boiled/heated.

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

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