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# LPPR4 Rabbit pAb

Catalog # AP98985

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q7Z2D5 |
| **Other Accession** | Q7Z2D5 |
| **Predicted** | Rat, Human, Mouse, Rabbit, Chicken, Dog, Horse, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 82983 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human LPPR4 |
| **Epitope Specificity** | 251-360/763 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the PA-phosphatase related phosphoesterase family. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | Phosphatidate phosphatases are a family of integral membrane glycoproteins that dephosphorylate a variety of lipid phosphates and play a role in signal transduction via the phospholipase D pathway. PAP-2 proteins function independently of Mg2+ and are insensitive to NEM (N-ethylmaleimide) inhibition. The lipid phosphates degraded by this family include ceramide 1-phosphate (C1P), sphingosine 1-phosphate (S1P), phosphatidic acid (PA) and lysophosphatidic acid (LPA). LPPR4 (lipid phosphate phosphatase-related protein type 4), also known as LPR4, PHP1, PRG1 or PRG-1, is a 763 amino acid multi-pass membrane protein that belongs to the PA-phosphatase related phosphoesterase family. Exclusively expressed in neurons, LPPR4 hydrolyzes lysophosphatidic acid (LPA) and facilitates axonal outgrowth during development and regenerative sprouting. LPPR4 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 1p21.2. |

## Additional Information

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| **Gene ID** | 9890 |
| **Other Names** | LPPR4; LPR4; PHP1; PRG-1; PRG1; PLPR4_HUMAN; PLPPR4; Brain-specific phosphatidic acid phosphatase-like protein 1; Inactive 2-lysophosphatidate phosphatase PLPPR4; Lipid phosphate phosphatase-related protein type 4; Plasticity-related gene 1 protein (PRG-1); KIAA0455; phospholipid phosphatase related 4; plasticity related gene-1 |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |

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| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | PLPPR4 ( HGNC:23496) |
| **Function** | Postsynaptic density membrane protein that indirectly regulates glutamatergic synaptic transmission through lysophosphatidic acid (LPA)-mediated signaling pathways. Binds lysophosphatidic acid (LPA) and mediates its internalization into cells. Could act as receptor or a transporter of this lipid at the post-synaptic membrane (By similarity). Modulates lysophosphatidic acid (LPA) activity in neuron axonal outgrowth during development by attenuating phospholipid- induced axon collapse (By similarity). |
| **Cellular Location** | Postsynaptic density membrane; Multi-pass membrane protein |
| **Tissue Location** | Expressed by glutamatergic neurons (at protein level). |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.