10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LPPR4 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4973b

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q7Z2D5
Other Accession	Q7TME0, NP_055654
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25865
Calculated MW	82983
Antigen Region	666-695

Additional Information

Gene ID	9890
Other Names	Lipid phosphate phosphatase-related protein type 4, Brain-specific phosphatidic acid phosphatase-like protein 1, Plasticity-related gene 1 protein, PRG-1, LPPR4, KIAA0455, PRG1
Target/Specificity	This LPPR4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 666-695 amino acids from the C-terminal region of human LPPR4.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LPPR4 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

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).

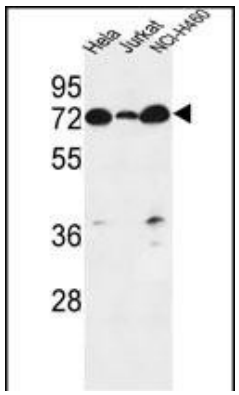
Background

LPPR4 belongs to the lipid phosphate phosphatase (LPP) family. LPPs catalyze the dephosphorylation of a number of bioactive lipid mediators that regulate a variety of cell functions. This protein is specifically expressed in neurons. It is located in the membranes of outgrowing axons and has been shown to be important for axonal outgrowth during development and regenerative sprouting.

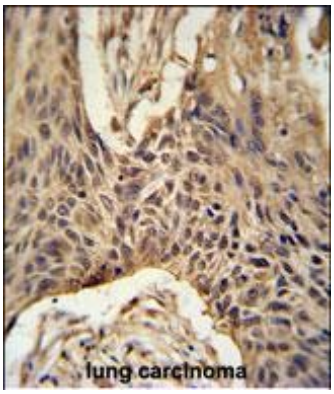
References

Trimbuch, T., et al. Cell 138(6):1222-1235(2009)
Vasan, R.S., et al. JAMA 302(2):168-178(2009)
Brauer, A.U., et al. Nat. Neurosci. 6(6):572-578(2003)

Images

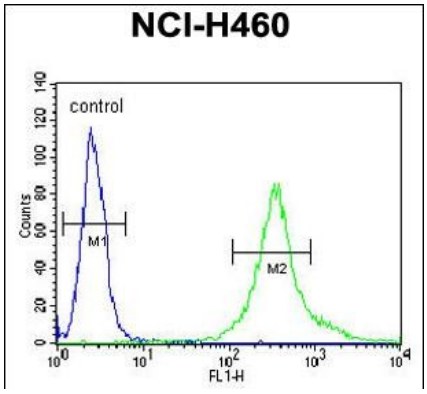


LPPR4 Antibody (C-term) (Cat. #AP4973b) western blot analysis in Hela,Jurkat,NCI-H460 cell line lysates (35ug/lane).This demonstrates the LPPR4 antibody detected the LPPR4 protein (arrow).



LPPR4 Antibody (C-term) (Cat. #AP4973b) immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the LPPR4 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

LPPR4 Antibody (C-term) (Cat. #AP4973b) flow cytometric analysis of NCI-H460 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated



goat-anti-rabbit secondary antibodies were used for the analysis.