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LAP1 Rabbit pAb

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Catalog # AP54466

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q96NW7
Predicted	Rat, Pig, Dog, Human, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	177133
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Densin180
Epitope Specificity	601-700/1537
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Cell junction > synapse > postsynaptic cell membrane > postsynaptic density.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Densin-180 is a synaptic transmembrane protein that is tightly associated with the postsynaptic density in CNS neurons and is postulated to function as a synaptic adhesion molecule. Densin-180 is a brain-specific momber of the O-sialoglycoprotein family which is highly concentrated at synapses along dendrites. The sequence of densin-180 contains 17 leucine-rich repeats, a sialomucin domain, an apparent transmembrane domain, and a PDZ (PSD-95, DIg, Z0-1) domain. The PDZ domain contributes to its binding to a-actinin. The intracellular portion of densin-180, CaMKIIa, interacts with a-actinin at distinct binding sites and, together, they form a ternary complex stabilized by multiple interactions.

Additional Information

Gene ID	57554
Other Names	Leucine-rich repeat-containing protein 7, Densin-180, Densin, Protein LAP1, LRRC7, KIAA1365, LAP1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500
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

Name	LRRC7 (HGNC:18531)
Synonyms	KIAA1365, LAP1
Function	Adapter protein that is required for correct postsynapse architecture and regulates postsynaptic plasticity through interactions with different partners (PubMed:11729199, PubMed:39256359). Through its interaction with CACNA1C, it enhances trafficking of voltage-dependent L-type calcium channels to the dendritic cell membrane and increases channel postsynaptic clustering, thereby facilitating excitatory calcium signaling (By similarity). It also serves as a scaffold that brings CAMK2A and PPP1CA into close proximity, probably facilitating rapid dephosphorylation of CAMK2A by PPP1CA and influencing CAMK2A- mediated regulation of postsynaptic plasticity (PubMed:39256359). Necessary for DISC1 and GRM5 localization to postsynaptic density complexes and for both N-methyl D-aspartate receptor-dependent and metabotropic glutamate receptor-dependent long term synaptic depression (By similarity).
Cellular Location	Cytoplasm. Postsynaptic density {ECO:0000250|UniProtKB:Q80TE7}. Cell projection, dendritic spine. Postsynapse
Tissue Location	Brain-specific. Isoform 3 is ubiquitously expressed.

Background

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