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PLEKHG5 Rabbit pAb

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Catalog # AP54858

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O94827
Reactivity	Rat, Mouse
Predicted	Pig, Dog, Human, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	111231
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PLEKHG5
Epitope Specificity	951-1062/1062
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. Cytoplasm, perinuclear region. Cell junction. Cell projection, lamellipodium. Note=Predominantly cytoplasmic, however when cells are stimulated found in perinuclear regions. Localized at cell-cell junctions in quiescent endothelial cells, it relocalizes to cytoplasmic vesicle and the leading edge of lamellipodia in migrating endothelial cells.
DISEASE	Distal spinal muscular atrophy, autosomal recessive, 4 (DSMA4) [MIM:611067]: A neuromuscular disorder. Distal spinal muscular atrophy, also known as distal hereditary motor neuronopathy, represents a heterogeneous group of neuromuscular disorders caused by selective degeneration of motor neurons in the anterior horn of the spinal cord, without sensory deficit in the posterior horn. The overall clinical picture consists of a classical distal muscular atrophy syndrome in the legs without clinical sensory loss. The disease starts with weakness and wasting of distal muscles of the anterior tibial and peroneal compartments of the legs. Later on, weakness and atrophy may expand to the proximal muscles of the lower limbs and/or to the distal upper limbs. DSMA4 is characterized by childhood onset, generalized muscle weakness and atrophy with denervation and normal sensation. Bulbar symptoms and pyramidal signs are absent. Note=The disease is caused by mutations affecting the gene represented in this entry. Charcot-Marie-Tooth disease, recessive, intermediate type, C (CMTRIC) [MIM:615376]: A form of Charcot-Marie-Tooth disease, a disorder of the peripheral nervous system, characterized by progressive weakness and atrophy, initially of the peroneal muscles and later of the distal muscles of the arms. Recessive intermediate forms of Charcot-Marie-Tooth disease are characterized by clinical and pathologic features intermediate between demyelinating and axonal peripheral neuropathies, and motor median nerve conduction velocities ranging from 25 to 45 m/sec. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions	This gene encodes a protein that activates the nuclear factor kappa B (NFKB1) signaling pathway. Mutations in this gene are associated with autosomal recessive distal spinal muscular atrophy. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2012]

Additional Information

Gene ID	57449
Other Names	Pleckstrin homology domain-containing family G member 5, PH domain-containing family G member 5, Guanine nucleotide exchange factor 720, GEF720, PLEKHG5, KIAA0720
Dilution	IHC-P=1:100-500,IHC-F=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	PLEKHG5
Synonyms	KIAA0720
Function	Functions as a guanine exchange factor (GEF) for RAB26 and thus regulates autophagy of synaptic vesicles in axon terminal of motoneurons (By similarity). Involved in the control of neuronal cell differentiation (PubMed:11704860). Plays a role in angiogenesis through regulation of endothelial cells chemotaxis. Also affects the migration, adhesion, and matrix/bone degradation in macrophages and osteoclasts (PubMed:23777631).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q66T02}. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:Q66T02}. Cell membrane {ECO:0000250|UniProtKB:Q66T02}. Cell junction {ECO:0000250|UniProtKB:Q66T02}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q66T02}. Note=Predominantly cytoplasmic, however when endothelial cells are stimulated with lysophosphatidic acid, PLEKHG5 is found in perinuclear regions and at the cell membrane Localizes at cell-cell junctions in quiescent endothelial cells, and relocalizes to cytoplasmic vesicle and the leading edge of lamellipodia in migrating endothelial cells. {ECO:0000250|UniProtKB:Q66T02}
Tissue Location	Predominantly expressed in the peripheral nervous system and brain. Highest expression is observed in heart, lung, kidney, testis and moderate expression is present in spleen, pancreas, skeletal muscle, ovary and liver. Weakly expressed in glioblastoma (GBM) cell lines.

Background

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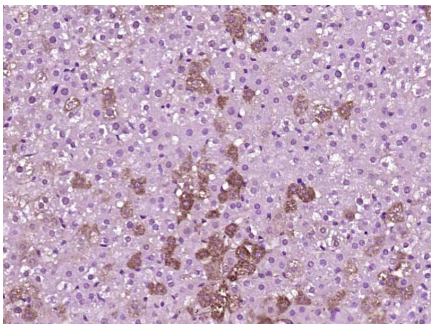
Images



Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PLEKHG5) Polyclonal Antibody, Unconjugated (AP54858) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.