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GPSM2 Rabbit pAb

Catalog # AP98586

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P81274
Other Accession	P81274
Predicted	Rat, Pig, Human, Mouse, Rabbit, Zebrafish, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	76662
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GPSM2
Epitope Specificity	401-500/684
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 GPSM family. Contains 4 GoLoco domains. Contains 8 TPR repeats.
SUBUNIT	Interacts with LLGL2. Interacts with INSC/inscuteable and probably with F2RL2.
Post-translational modifications	Defects in GPSM2 are the cause of Chudley-McCullough syndrome (CMCS) [MIM:604213]. An autosomal recessive neurologic disorder characterized by early-onset sensorineural deafness and specific brain anomalies on MRI, including hypoplasia of the corpus callosum, enlarged cysterna magna with mild focal cerebellar dysplasia, and nodular heterotopia. Some patients have hydrocephalus. Psychomotor development is normal.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Plays an important role in spindle pole orientation. Interacts and contributes to the functional activity of G(i) alpha proteins. Acts to stabilize the apical complex during neuroblast divisions.

Additional Information

Gene ID	29899
Other Names	CMCS; DFNB82; LGN; PINS; 6230410J09Rik; RGD1560967; GPSM2_HUMAN; GPSM2; Mosaic protein LGN; GPSM2_MOUSE; Pins homolog; G protein signaling modulator 2; G-protein signalling modulator 2 (AGS3-like, C. elegans); deafness, autosomal recessive 82; G-protein signaling modulator 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	GPSM2
Synonyms	LGN
Function	Plays an important role in mitotic spindle pole organization via its interaction with NUMA1 (PubMed:11781568, PubMed:15632202, PubMed:21816348). Required for cortical dynein-dynactin complex recruitment during metaphase (PubMed:22327364). Plays a role in metaphase spindle orientation (PubMed:22327364). Also plays an important role in asymmetric cell divisions (PubMed:21816348). Has guanine nucleotide dissociation inhibitor (GDI) activity towards G(i) alpha proteins, such as GNAI1 and GNAI3, and thereby regulates their activity (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cell cortex. Cytoplasm, cytoskeleton, spindle pole. Lateral cell membrane. Note=Localizes in the cytoplasm during interphase and at cell cortex during metaphase (PubMed:11781568, PubMed:15632202, PubMed:22074847). Colocalizes with NUMA1 to mitotic spindle poles (PubMed:11781568, PubMed:21816348). Localized at the central and lateral cell cortex regions in a RanGTP-dependent manner (PubMed:22327364). In horizontally retinal progenitor dividing cells, localized to the lateral cortical region. In vertically retinal progenitor dividing cells, localized at the polar cortical region (By similarity). {ECO:0000250|UniProtKB:Q8VDU0, ECO:0000269|PubMed:11781568, ECO:0000269|PubMed:15632202, ECO:0000269|PubMed:21816348, ECO:0000269|PubMed:22074847, ECO:0000269|PubMed:22327364}
Tissue Location	Ubiquitously expressed.

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