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Goat Anti-GPSM2 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1499a

Specification

Goat Anti-GPSM2 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P81274
Other Accession	NP_037428, 29899
Reactivity	**Human**
Predicted	**Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**76662**

Goat Anti-GPSM2 Antibody - Additional Information

Gene ID 29899

Other Names
G-protein-signaling modulator 2, Mosaic protein LGN, GPSM2, LGN

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-GPSM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-GPSM2 Antibody - 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.

Goat Anti-GPSM2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-GPSM2 Antibody - Images

AF1499a (0.01 µg/ml) staining of Human Brain (Cerebellum) lysate (35 µg protein in RIPA buffer).

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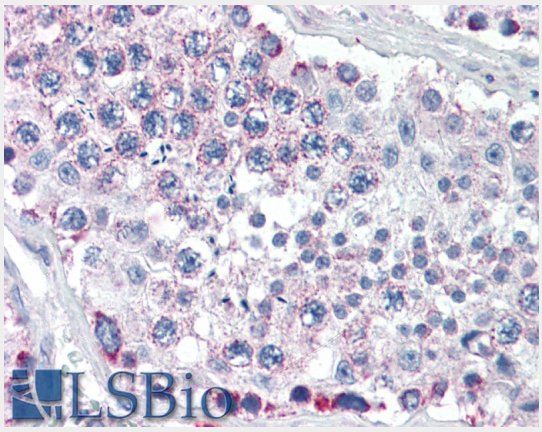
Primary incubation was 1 hour. Detected by chemiluminescence.



EB07596 (5µg/ml) staining of paraffin embedded Human Testis. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.

Goat Anti-GPSM2 Antibody - Background

Heterotrimeric G proteins transduce extracellular signals received by cell surface receptors into integrated cellular responses. GPSM2 belongs to a group of proteins that modulate activation of G proteins (Blumer et al., 2002 [PubMed 11832491]).

Goat Anti-GPSM2 Antibody - References

Whole exome sequencing and homozygosity mapping identify mutation in the cell polarity protein GPSM2 as the cause of nonsyndromic hearing loss DFNB82. Walsh T, et al. Am J Hum Genet, 2010 Jul 9. PMID 20602914.
Centrosome-related genes, genetic variation, and risk of breast cancer. Olson JE, et al. Breast Cancer Res Treat, 2010 May 28. PMID 20508983.
Ric-8A and Gi alpha recruit LGN, NuMA, and dynein to the cell cortex to help orient the mitotic spindle. Woodard GE, et al. Mol Cell Biol, 2010 Jul. PMID 20479129.
Association of mitotic regulation pathway polymorphisms with pancreatic cancer risk and outcome. Couch FJ, et al. Cancer Epidemiol Biomarkers Prev, 2010 Jan. PMID 20056645.
Toward a confocal subcellular atlas of the human proteome. Barbe L, et al. Mol Cell Proteomics, 2008 Mar. PMID 18029348.