

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

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**Goat Anti-GPSM2 Antibody - Product Information**

Application	IHC, Pep-ELISA
Primary Accession	<a href="#">P81274</a>
Other Accession	<a href="#">NP_037428</a> , <a href="#">29899</a>
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

**Dilution**

IHC~~1:100~500

Pep-ELISA~~N/A

**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:<a href="http://www.uniprot.org/citations/11781568" target="\_blank">11781568</a>, PubMed:<a href="http://www.uniprot.org/citations/15632202" target="\_blank">15632202</a>, PubMed:<a href="http://www.uniprot.org/citations/21816348" target="\_blank">21816348</a>). Required for cortical dynein-dynactin complex recruitment during metaphase (PubMed:<a href="http://www.uniprot.org/citations/22327364" target="\_blank">22327364</a>). Plays a role in metaphase spindle orientation (PubMed:<a href="http://www.uniprot.org/citations/22327364" target="\_blank">22327364</a>). Also plays an important role in asymmetric cell divisions (PubMed:<a href="http://www.uniprot.org/citations/21816348" target="\_blank">21816348</a>). 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**

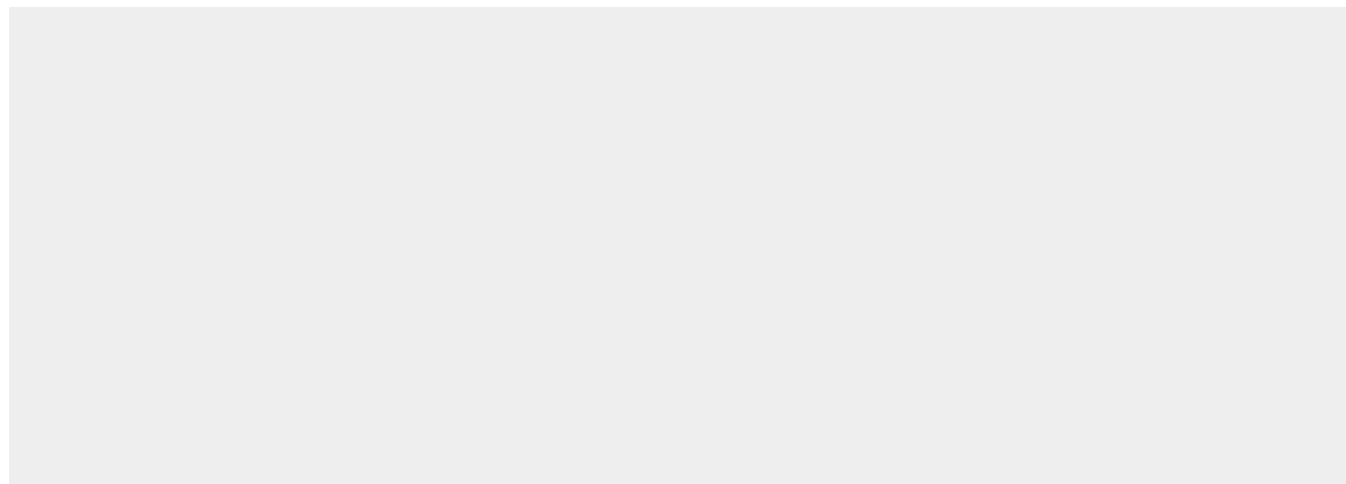
Ubiquitously expressed.

### **Goat Anti-GPSM2 Antibody - Protocols**

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

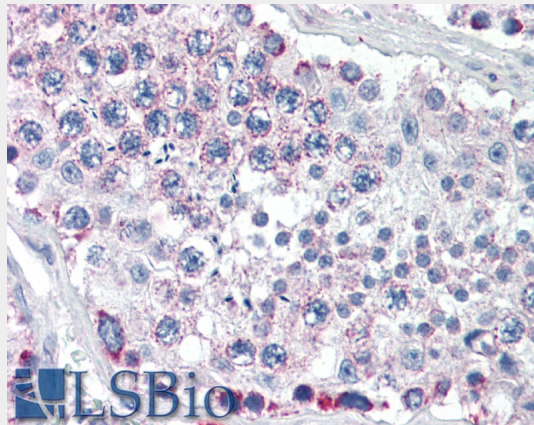
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Goat Anti-GPSM2 Antibody - Images**



250kDa  
150kDa  
100kDa  
75kDa  
50kDa  
37kDa  
25kDa  
20kDa  
15kDa

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