

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

## Specification

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### Goat Anti-GPSM2 Antibody - Product Information

Application	<b>WB, IHC</b>
Primary Accession	<a href="#">P81274</a>
Other Accession	<a href="#">NP_037428</a> , <a href="#">29899</a>
Reactivity	<b>Human</b>
Predicted	<b>Dog</b>
Host	<b>Goat</b>
Clonality	<b>Polyclonal</b>
Concentration	<b>100ug/200ul</b>
Isotype	<b>IgG</b>
Calculated MW	<b>76662</b>

### 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](http://www.uniprot.org/citations/11781568)), PubMed: [15632202](http://www.uniprot.org/citations/15632202), PubMed: [21816348](http://www.uniprot.org/citations/21816348)).

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.

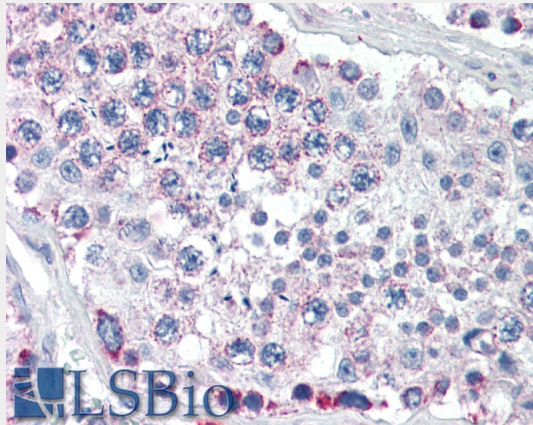
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Goat Anti-GPSM2 Antibody - Images



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.