

**KD-Validated Anti-GEMIN2 Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI1543****Specification****KD-Validated Anti-GEMIN2 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC
Primary Accession	<a href="#">O14893</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 32 kDa , observed , 31 kDa KDa
Gene Name	GEMIN2
Aliases	GEMIN2; Gem Nuclear Organelle Associated Protein 2; SIP1; Survival Of Motor Neuron Protein Interacting Protein 1; Gem-Associated Protein; Component Of Gems; Gemin-2; Survival Of Motor Neuron Protein-Interacting Protein 1; Gem (Nuclear Organelle) Associated Protein 2; SMN Interacting Protein 1-Delta; SMN-Interacting Protein 1; SIP1-Delta
Immunogen	A synthesized peptide derived from human Gemin 2

**KD-Validated Anti-GEMIN2 Rabbit Monoclonal Antibody - Additional Information**Gene ID **8487****Other Names**

Gem-associated protein 2, Gemin-2, Component of gems 2, Survival of motor neuron protein-interacting protein 1, SMN-interacting protein 1, GEMIN2 ([http://www.genenames.org/cgi-bin/gene\\_symbol\\_report?hgnc\\_id=10884](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=10884))  
HGNC:10884), SIP1

**KD-Validated Anti-GEMIN2 Rabbit Monoclonal Antibody - Protein Information****Name** GEMIN2 ([HGNC:10884](#))**Synonyms** SIP1**Function**

The SMN complex catalyzes the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome, and thereby plays an important role in the splicing of cellular pre- mRNAs (PubMed:[18984161](http://www.uniprot.org/citations/18984161), PubMed:[9323129](http://www.uniprot.org/citations/9323129)). Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP (Sm core) (PubMed:[9323129](#)).

href="http://www.uniprot.org/citations/18984161" target="\_blank">18984161</a>). In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG (5Sm) are trapped in an inactive 6S pICln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP (PubMed:<a href="http://www.uniprot.org/citations/18984161" target="\_blank">18984161</a>). To assemble core snRNPs, the SMN complex accepts the trapped 5Sm proteins from CLNS1A (PubMed:<a href="http://www.uniprot.org/citations/18984161" target="\_blank">18984161</a>, PubMed:<a href="http://www.uniprot.org/citations/9323129" target="\_blank">9323129</a>). Binding of snRNA inside 5Sm ultimately triggers eviction of the SMN complex, thereby allowing binding of SNRPD3 and SNRPB to complete assembly of the core snRNP (PubMed:<a href="http://www.uniprot.org/citations/31799625" target="\_blank">31799625</a>). Within the SMN complex, GEMIN2 constrains the conformation of 5Sm, thereby promoting 5Sm binding to snRNA containing the snRNP code (a nonameric Sm site and a 3'-adjacent stem-loop), thus preventing progression of assembly until a cognate substrate is bound (PubMed:<a href="http://www.uniprot.org/citations/16314521" target="\_blank">16314521</a>, PubMed:<a href="http://www.uniprot.org/citations/21816274" target="\_blank">21816274</a>, PubMed:<a href="http://www.uniprot.org/citations/31799625" target="\_blank">31799625</a>).

### Cellular Location

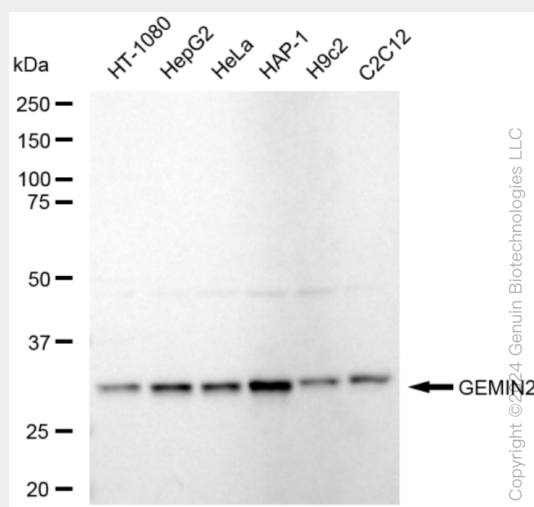
Nucleus, gem. Cytoplasm. Note=Localized in subnuclear structures next to coiled bodies, called gems, which are highly enriched in spliceosomal snRNPs. Also found in the cytoplasm

### KD-Validated Anti-GEMIN2 Rabbit Monoclonal Antibody - Protocols

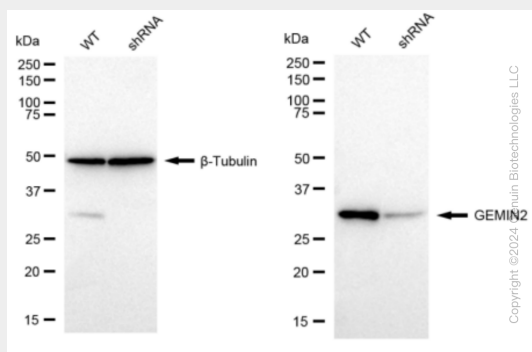
Provided below are standard protocols that you may find useful for product applications.

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

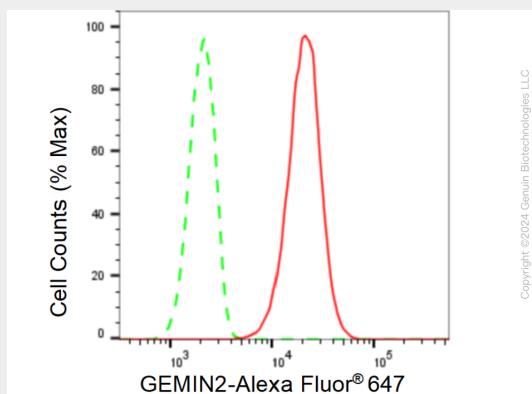
### KD-Validated Anti-GEMIN2 Rabbit Monoclonal Antibody - Images



from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-GEMIN2 antibody (Cat#AGI1543, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-GEMIN2 antibody (Cat#AGI1543). GEMIN2 expression in wild type (WT) and GEMIN2 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-GEMIN2 antibody (Cat#AGI1543, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of GEMIN2 expression in HepG2 cells using GEMIN2 antibody (Cat#AGI1543, 1:2,000). Green, isotype control; red, GEMIN2.