

**Gemin 2 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP54545****Specification**

---

**Gemin 2 Polyclonal Antibody - Product Information**

|                                |   |
|--------------------------------|---|
| Application                    | WB, IHC-P, IHC-F, IF, E   |
| Primary Accession              | <a href="#">O14893</a>  |
| Reactivity                     | Rat, Pig  |
| Host                           | Rabbit  |
| Clonality                      | Polyclonal  |
| Calculated MW                  | 32 KDa  |
| Physical State                 | Liquid  |
| Immunogen                      | KLH conjugated synthetic peptide derived from human Gemin 2   |
| Epitope Specificity            | 101-200/280   |
| Isotype                        | IgG   |
| <b>Purity</b>                  |   |
| affinity purified by Protein A |   |
| Buffer                         | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.   |
| SUBCELLULAR 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. |
| SIMILARITY                     | Belongs to the gemin-2 family.  |
| SUBUNIT                        | Part of the core SMN complex that contains SMN1, GEMIN2/SIP1, DDX20/GEMIN3, GEMIN4, GEMIN5, GEMIN6, GEMIN7, GEMIN8 and STRAP/UNRIP. Interacts directly with GEMIN5.                 |
| Important Note                 | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.   |

**Background Descriptions**

This gene encodes one of the proteins found in the SMN complex, which consists of several gemin proteins and the protein known as the survival of motor neuron protein. The SMN complex is localized to a subnuclear compartment called gems (geminini of coiled bodies) and is required for assembly of spliceosomal snRNPs and for pre-mRNA splicing. This protein interacts directly with the survival of motor neuron protein and it is required for formation of the SMN complex. A knockout mouse targeting the mouse homolog of this gene exhibited disrupted snRNP assembly and motor neuron degeneration. [provided by RefSeq, Aug 2011].

**Gemin 2 Polyclonal 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, SIP1

### Dilution

WB~1:1000  
IHC-P~N/A  
IHC-F~N/A  
IF~1:50~200  
E~N/A

### Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glycerol

### 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.

## Gemin 2 Polyclonal 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 SNRNPB, 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: [18984161](http://www.uniprot.org/citations/18984161)). 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: [18984161](http://www.uniprot.org/citations/18984161)). To assemble core snRNPs, the SMN complex accepts the trapped 5Sm proteins from CLNS1A (PubMed: [18984161](http://www.uniprot.org/citations/18984161), PubMed: [9323129](http://www.uniprot.org/citations/9323129)). Binding of snRNA inside 5Sm ultimately triggers eviction of the SMN complex, thereby allowing binding of SNRPD3 and SNRNPB to complete assembly of the core snRNP (PubMed: [31799625](http://www.uniprot.org/citations/31799625)). 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: [16314521](http://www.uniprot.org/citations/16314521), PubMed: [21816274](http://www.uniprot.org/citations/21816274), PubMed: [31799625](http://www.uniprot.org/citations/31799625)).

### Cellular Location

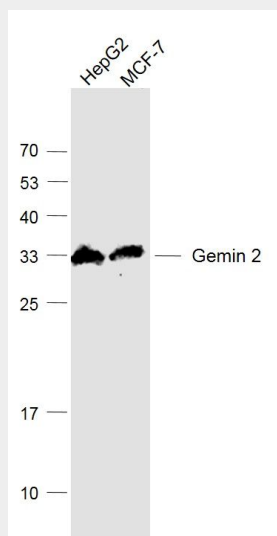
Nucleus, gem. Cytoplasm. Note=Localized in subnuclear structures next to coiled bodies, called gems, which are highly enriched in spliceosomal snRNPs. Also found in the cytoplasm

## Gemin 2 Polyclonal 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](#)

### Gemin 2 Polyclonal Antibody - Images



#### Sample:

HepG2(Human) Cell Lysate at 30 ug

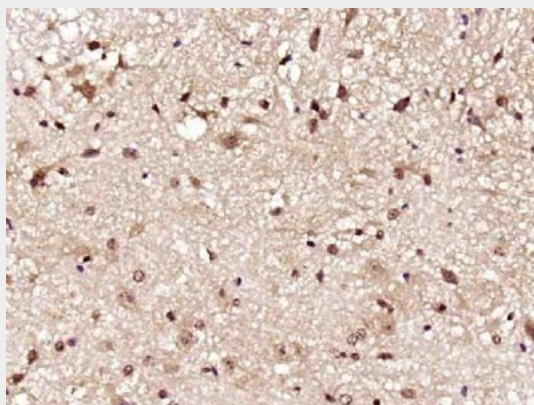
MCF-7(Human) Cell Lysate at 30 ug

Primary: Anti-Gemin 2 (bs-11562R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

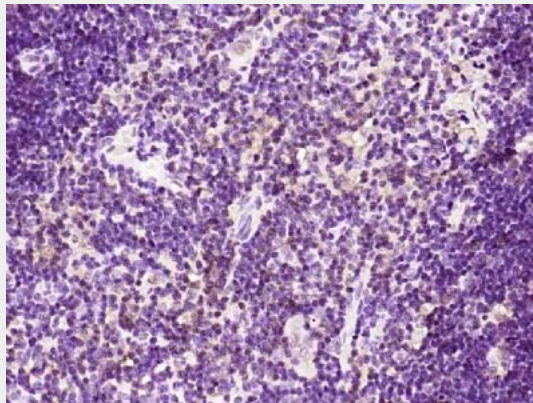
Predicted band size: 32 kD

Observed band size: 32 kD

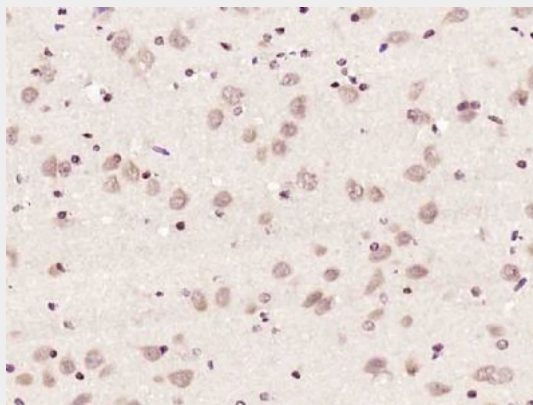


Paraformaldehyde-fixed, paraffin embedded (rat spinal cord); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with

(Gemin 2) Polyclonal Antibody, Unconjugated (bs-11562R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat thymus); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Gemin 2) Polyclonal Antibody, Unconjugated (bs-11562R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Gemin 2) Polyclonal Antibody, Unconjugated (bs-11562R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.