

# **Gemin 2 Polyclonal Antibody**

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54545

# **Specification**

# **Gemin 2 Polyclonal Antibody - Product Information**

Application WB, IHC-P
Primary Accession O14893
Reactivity Rat, Pig
Host Rabbit
Clonality Polyclonal
Calculated MW 31585

# 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

#### **Format**

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

#### **Storage**

Store at -20  $^{\circ}$ 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  $^{\circ}$ C.

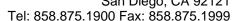
## **Gemin 2 Polyclonal Antibody - Protein Information**

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:<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>). 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:<a 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 plCln-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/31799625"

target=" blank">31799625</a>, PubMed:<a href="http://www.uniprot.org/citations/21816274" target="blank">21816274</a>, PubMed:<a href="http://www.uniprot.org/citations/16314521" target=" blank">16314521</a>).

## **Cellular Location**

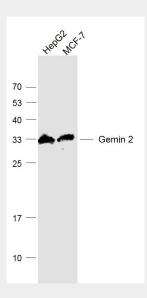
Nucleus, gem. Cytoplasm. Note=Localized in subnuclear structures next to coiled bodies, called gems, which are highly enriched in spliceosomal snRNPs. Also found in the cytoplasm

## 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 Cytomety
- Cell Culture

## Gemin 2 Polyclonal Antibody - Images



# Sample:

HepG2(Human) Cell Lysate at 30 ug MCF-7(Human) Cell Lysate at 30 ug

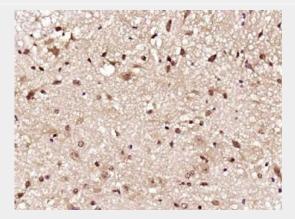
Primary: Anti-Gemin 2 (bs-11562R) at 1/1000 dilution

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

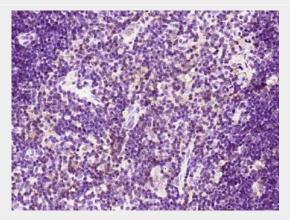
Predicted band size: 32 kD



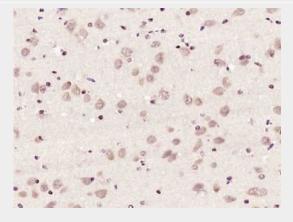
Observed band size: 32 kD



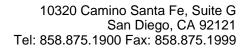
Paraformaldehyde-fixed, paraffin embedded (rat spinal cord); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Gemin 2) Polyclonal 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.