

GEMIN7 Antibody - N-terminal region Rabbit Polyclonal Antibody

Catalog # Al16069

## Specification

# **GEMIN7 Antibody - N-terminal region - Product Information**

Application Primary Accession Other Accession Reactivity

Predicted

Host Clonality Calculated MW WB <u>Q9H840</u> <u>NP\_001007270</u> Human, Mouse, Rat, Horse, Bovine, Guinea Pig, Dog Human, Mouse, Rat, Pig, Horse, Bovine, Guinea Pig, Dog Rabbit Polyclonal 14kDa KDa

## **GEMIN7** Antibody - N-terminal region - Additional Information

Gene ID 79760

Other Names Gem-associated protein 7, Gemin-7, SIP3, GEMIN7

Format

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

**Reconstitution & Storage** 

Add 50 &mu, I of distilled water. Final Anti-GEMIN7 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.

**Precautions** GEMIN7 Antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

## **GEMIN7** Antibody - N-terminal region - Protein Information

#### Name GEMIN7

#### 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. 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). In the cytosol, the Sm proteins SNRPD1, SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S plCln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP. To assemble core snRNPs, the SMN complex accepts the trapped 5Sm proteins from CLNS1A forming an intermediate.



Binding of snRNA inside 5Sm triggers eviction of the SMN complex, thereby allowing binding of SNRPD3 and SNRPB to complete assembly of the core snRNP.

#### **Cellular Location**

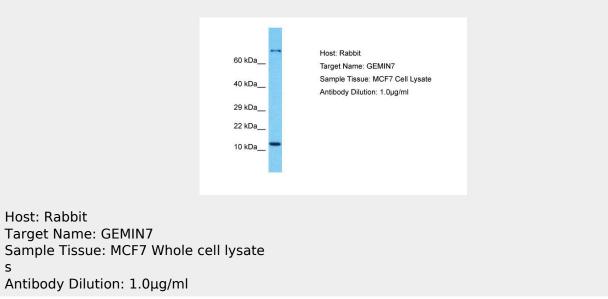
Nucleus, nucleoplasm. Nucleus, gem. Cytoplasm Note=Found both in the nucleoplasm and in nuclear bodies called gems (Gemini of Cajal bodies) that are often in proximity to Cajal (coiled) bodies. Also found in the cytoplasm

#### **GEMIN7 Antibody - N-terminal region - 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
- <u>Cell Culture</u>

## GEMIN7 Antibody - N-terminal region - Images



## **GEMIN7 Antibody - N-terminal region - Background**

The SMN complex plays a catalyst role in the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome. Thereby, plays an important role in the splicing of cellular pre-mRNAs. 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. In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S plCln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP. Dissociation by the SMN complex of CLNS1A from the trapped Sm proteins and their transfer to an SMN-Sm complex triggers the assembly of core snRNPs and their transport to the nucleus.

#### **GEMIN7 Antibody - N-terminal region - References**



Baccon J.,et al.J. Biol. Chem. 277:31957-31962(2002). Ota T.,et al.Nat. Genet. 36:40-45(2004). Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases. Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Chari A.,et al.Cell 135:497-509(2008).