

Gemin 4 Rabbit pAb

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Catalog # AP55134

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P57678
Reactivity	Human
Predicted	Rat, Dog, Mouse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	120037
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Gemin 4
Epitope Specificity	251-350/1058
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus. Nucleus, nucleolus. Nucleus, gem. Note=Localized in subnuclear structures next to coiled bodies, called gems, which are highly enriched in spliceosomal snRNPs and in the nucleolus.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Gemin4 is a component of the SMN core complex which, while in the cytoplasm, plays an essential role in ribonucleoprotein (snRNP) assembly, including the biogenesis, delivery and recycling of snRNPs to the spliceosome. In the nucleus, where SMN is required for pre-mRNA splicing, Gemin4 concentrates next to coiled bodies in subnuclear structures called gems, that are highly enriched in splicosomal snRNPs, and in the nucleolus. Deletion or loss-of-function mutations in the SMN lead to the neurodegenerative disease spinal muscular atrophy (SMA). The human Gemin4 maps to chromosome 17p13.

Additional Information

Gene ID	50628
Other Names	Gem-associated protein 4, Gemin-4, Component of gems 4, p97, GEMIN4
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

Protein Information

Name GEMIN4

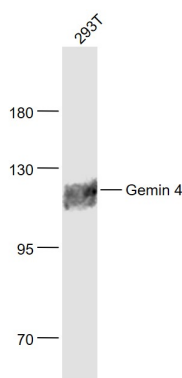
Function The SMN complex catalyzes the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome, and thereby plays an important role in the splicing of cellular pre- mRNAs. Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, 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, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S pICln-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 Cytoplasm. Nucleus. Nucleus, nucleolus. Nucleus, gem. Note=Localized in subnuclear structures next to coiled bodies, called gems, which are highly enriched in spliceosomal snRNPs and in the nucleolus

Background

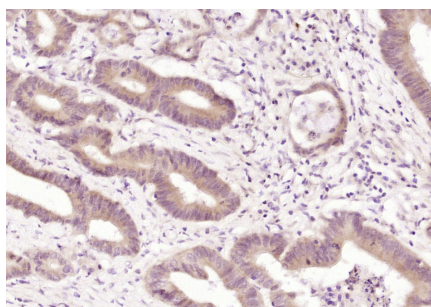
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Images



Sample:
293T(Human) Cell Lysate at 30 ug

Primary: Anti- Gemin 4 (AP55134) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 120 kD
Observed band size: 120 kD



Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); 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 4) Polyclonal Antibody, Unconjugated (AP55134) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.