

Recombinant Mouse Gemin5 Protein, Myc/DDK-tagged

Cat. No. Gemin5-3188M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length gem nuclear organelle associated protein 5 (Gemin5), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Required for the assembly of the SMN complex that 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 pICln-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. GEMIN5 acts as the snRNA-binding protein of the SMN complex. Binds to the 7-methylguanosine cap of RNA molecules. Binds to the 3'-UTR of SMN1 mRNA and regulates its translation; does not affect mRNA stability. May play a role in the regulation of protein synthesis via its interaction with ribosomes.
Molecular Mass	166.5 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Gemin5 gem nuclear organelle associated protein 5 [Mus musculus (house mouse)]
Official Symbol	Gemin5
Synonyms	GEMIN5; gem (nuclear organelle) associated protein 5; gem-associated protein 5; AA407055; AA407208; AI451603; BB194447; C330013N08
Gene ID	216766
mRNA Refseq	NM_001166669
Protein Refseq	NP_001160141
UniProt ID	Q8BX17

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