

Gemin8 (B-6): sc-376518

BACKGROUND

Gemin8 is a 242 amino acid protein encoded by the mouse gene Gemin8. Gemin8, along with Gemin2-7 and unrip, is a major component of the large multiprotein survival of motor neurons (SMN) complex. The survival of motor neurons (SMN) protein, a product of the disease gene of the common neurodegenerative disease spinal muscular atrophy, is also part of the SMN complex. The SMN complex is a modular composition of proteins with SMN, Gemin8, and Gemin7 in its center. The SMN complex functions as an assembly machine for small nuclear ribonucleoproteins (snRNPs)-the major components of the spliceosome. Gemin8 binds directly to SMN and mediates its interaction with the Gemin6/Gemin7 heterodimer. Importantly, the loss of Gemin6, Gemin7, and Unrip interaction with SMN as a result of Gemin8 knockdown affects snRNP assembly by impairing the SMN complex association with Sm proteins but not with snRNAs. The Gemin6/Gemin7 complex binds to Sm proteins and might help organize Sm proteins for formation of Sm rings on snRNA targets.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GEMIN8 (human) mapping to Xp22.2; Gemin8 (mouse) mapping to X F5.

SOURCE

Gemin8 (B-6) is a mouse monoclonal antibody raised against amino acids 1-242 representing full length Gemin8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Gemin8 (B-6) is recommended for detection of Gemin8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Gemin8 siRNA (h): sc-62372, Gemin8 siRNA (m): sc-62373, Gemin8 shRNA Plasmid (h): sc-62372-SH, Gemin8 shRNA Plasmid (m): sc-62373-SH, Gemin8 shRNA (h) Lentiviral Particles: sc-62372-V and Gemin8 shRNA (m) Lentiviral Particles: sc-62373-V.

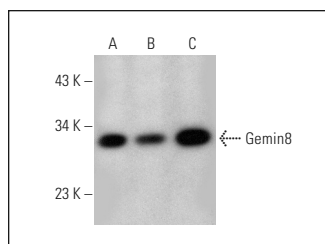
Molecular Weight of Gemin8: 32 kDa.

Positive Controls: A549 cell lysate: sc-2413, T84 whole cell lysate: sc-364797 or HCT-116 whole cell lysate: sc-364175.

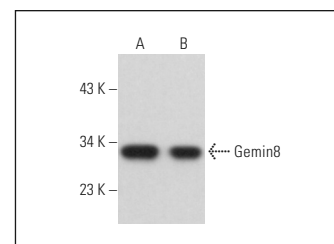
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Gemin8 (B-6): sc-376518. Western blot analysis of Gemin8 expression in SW480 (A), T84 (B) and HCT-116 (C) whole cell lysates.



Gemin8 (B-6): sc-376518. Western blot analysis of Gemin8 expression in SW480 (A) and A549 (B) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.