

gremlin-1 (4C2): sc-293426

BACKGROUND

The gremlin protein family contains antagonists of bone morphogenetic protein (BMP) signaling that are expressed in the neural crest. All family members are secreted proteins that act as BMP antagonists in embryonic explants and are expressed in the proximal airway epithelium of the lung during embryonic development. Gremlin-1 is required for early limb out-growth and patterning in the FGF4-SHH feedback loop, while gremlin-2 binds and blocks the activity of BMP-2 and BMP-4. The dorsaling factor gremlin belongs to a novel gene family that includes the head-inducing factor Cerberus and the tumor suppressor DAN. Additionally, secreted gremlin relays the Sonic hedgehog signal from the polarizing region to the apical ectodermal ridge.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GREM1 (human) mapping to 15q13.3; Grem1 (mouse) mapping to 2 E4.

SOURCE

gremlin-1 (4C2) is a mouse monoclonal antibody raised against amino acids 75-184 representing partial length gremlin-1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

gremlin-1 (4C2) is recommended for detection of gremlin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

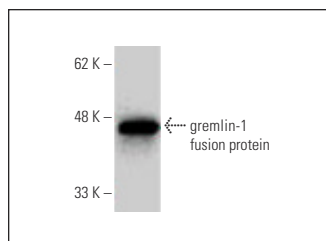
Suitable for use as control antibody for gremlin-1 siRNA (h): sc-39408, gremlin-1 siRNA (m): sc-39409, gremlin-1 shRNA Plasmid (h): sc-39408-SH, gremlin-1 shRNA Plasmid (m): sc-39409-SH, gremlin-1 shRNA (h) Lentiviral Particles: sc-39408-V and gremlin-1 shRNA (m) Lentiviral Particles: sc-39409-V.

Molecular Weight of gremlin-1: 23 kDa.

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).

DATA



gremlin-1 (4C2): sc-293426. Western blot analysis of human recombinant gremlin-1 fusion protein.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.