

chordin (K-25): sc-130720

BACKGROUND

The patterning of the CNS relies on the interaction of multiple signaling molecules such as Sonic Hedgehog, Wnts, and BMPs and their antagonists chordin and Noggin. At midgastrula, expression of Noggin overlaps that of chordin. Chordin is a key developmental protein that dorsalizes early vertebrate embryonic tissues by binding to ventralizing TGF β -like bone morphogenetic proteins and sequestering them in latent complexes. The gene which encodes chordin maps to human chromosome 3q27. Noggin is a secreted protein that binds and inactivates members of the transforming growth factor β (TGF β) superfamily of signaling proteins, such as BMP-2, 4, 7. The gene which encodes Noggin maps to human chromosome 17q22.

REFERENCES

1. Valenzuela, D.M., et al. 1995. Identification of mammalian Noggin and its expression in the adult nervous system. *J. Neurosci.* 15: 6077-6084.
2. Zimmerman, L.B., et al. 1996. The Spemann organizer signal Noggin binds and inactivates bone morphogenetic protein 4. *Cell* 86: 599-606.
3. Pappano, W.N., et al. 1998. Coding sequence and expression patterns of mouse chordin and mapping of the cognate mouse Chrd and human CHRDN genes. *Genomics* 52: 236-239.
4. Scott, I.C., et al. 1999. Mammalian BMP-1/Tolloid-related metalloproteinases, including novel family member mammalian Tolloid-like 2, have differential enzymatic activities and distributions of expression relevant to patterning and skeletogenesis. *Dev. Biol.* 213: 283-300.
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6. Wessely, O., et al. 2002. Neural plate patterning by secreted signals. *Neuron* 33: 489-491.
7. LocusLink Report (LocusID: 602991). <http://www.ncbi.nlm.nih.gov/LocusLink/>
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CHROMOSOMAL LOCATION

Genetic locus: CHRDN (human) mapping to 3q27.1.

SOURCE

chordin (K-25) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of chordin of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml 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.

RESEARCH USE

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

APPLICATIONS

chordin (K-25) is recommended for detection of chordin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 chordin siRNA (h): sc-42136, chordin shRNA Plasmid (h): sc-42136-SH and chordin shRNA (h) Lentiviral Particles: sc-42136-V.

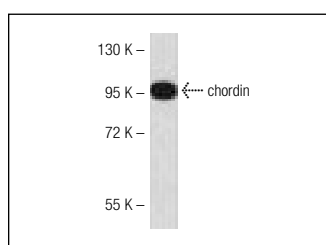
Molecular Weight of chordin: 120 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

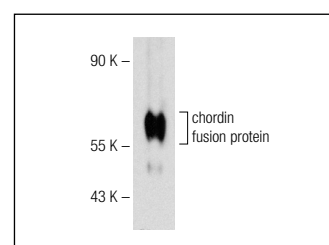
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



chordin (K-25): sc-130720. Western blot analysis of chordin expression in Hep G2 whole cell lysate.



chordin (K-25): sc-130720. Western blot analysis of human recombinant chordin fusion protein.

PROTOCOLS

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