

Kremen-1 (N-16): sc-47086

BACKGROUND

The Wnt genes are a group of well conserved, cysteine-rich secreted glycoproteins that are required for numerous developmental processes including embryogenesis, asymmetric cell division and central nervous system (CNS) patterning. The association of the Wnt protein with the seven membrane spanning receptor frizzled activates dishevelled, which downregulates glycogen synthase kinase (GSK) through serine phosphorylation. Reduced levels of active GSK causes the accumulation of β -catenin and subsequent regulation of developmentally significant Wnt target genes. Wnt antagonists, Dickkopf (which includes Dkk1-4), frizzled-related protein (sFRP), Soggy-1, Kremen-1 and Wnt inhibitory factor-1 (WIF-1) are necessary to ensure normal spatial and temporal patterns of Wnt activity during developmental processes.

REFERENCES

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2. Cadigan, K.M., et al. 1997. Wnt signaling: a common theme in animal development. *Genes Dev.* 11: 3286-3305.
3. Sakanaka, C., et al. 1998. Bridging of β -catenin and glycogen synthase kinase-3 β by axin and inhibition of β -catenin-mediated transcription. *Proc. Natl. Acad. Sci. USA* 95: 3020-3023.
4. Glinka, A., et al. 1998. Dickkopf-1 is a member of a new family of secreted proteins and functions in head induction. *Nature* 391: 357-362.
5. Fedi, P., et al. 1999. Isolation and biochemical characterization of the human Dkk-1 homologue, a novel inhibitor of mammalian Wnt signaling. *J. Biol. Chem.* 274: 19465-19472.
6. Etheridge, S.L., et al. 2004. Expression profiling and functional analysis of Wnt signaling mechanisms in mesenchymal stem cells. *Stem Cells* 22: 849-860.
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CHROMOSOMAL LOCATION

Genetic locus: KREMEN1 (human) mapping to 22q12.1; Kremen1 (mouse) mapping to 11 A1.

SOURCE

Kremen-1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Kremen-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47086 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Kremen-1 (N-16) is recommended for detection of mature Kremen-1 and Dickkopf precursor of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

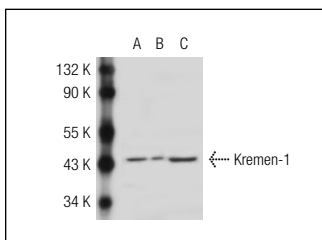
Kremen-1 (N-16) is also recommended for detection of mature Kremen-1 and Dickkopf precursor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Kremen-1 siRNA (h): sc-60899, Kremen-1 siRNA (m): sc-60900, Kremen-1 shRNA Plasmid (h): sc-60899-SH, Kremen-1 shRNA Plasmid (m): sc-60900-SH, Kremen-1 shRNA (h) Lentiviral Particles: sc-60899-V and Kremen-1 shRNA (m) Lentiviral Particles: sc-60900-V.

Molecular Weight of Kremen-1: 52 kDa.

Positive Controls: Daudi + IFN- α cell lysate: sc-2266 or Kremen-1 (h): 293T Lysate: sc-117245.

DATA



Kremen-1 (N-16): sc-47086. Western blot analysis of Kremen-1 expression in non-transfected 293T: sc-117752 (A), human Kremen-1 transfected 293T: sc-117245 (B) and IFN- α -treated Daudi (C) 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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Kremen-1 (R17-2): sc-74206**, our highly recommended monoclonal alternative to Kremen-1 (N-16).