

# Soggy-1 (E-12): sc-271563

## BACKGROUND

The Wnt genes, a group of well-conserved, cysteine-rich, secreted glycoproteins, 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 results in the accumulation of  $\beta$ -catenin and subsequent regulation of developmentally significant Wnt target genes. Wnt antagonists, which include Dickkopf (Dkk1-4), Soggy-1 (also designated DkkL1), frizzled-related protein (sFRP) and Wnt inhibitory factor-1 (WIF-1), are necessary to ensure normal spatial and temporal patterns of Wnt activity during developmental processes. Soggy-1 is a secreted antagonist of Wnt expressed in preimplantation mouse embryos and developing neural tissue, as well as adult testis tissue. Soggy-1 is subjected to posttranslational modification by glycosylation; additional modifications have been observed and are yet to be characterized. The molecular weight of Soggy-1 has been observed to vary depending on tissue and cell type.

## REFERENCES

1. Krasnow, R.E., et al. 1995. Dishevelled is a component of the frizzled signaling pathway in *Drosophila*. *Development* 121: 4095-4102.
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  $\beta$ -catenin and glycogen synthase kinase-3 $\beta$  by axin and inhibition of  $\beta$ -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.

## CHROMOSOMAL LOCATION

Genetic locus: DKKL1 (human) mapping to 19q13.33; Dkk1 (mouse) mapping to 7 B4.

## SOURCE

Soggy-1 (E-12) is a mouse monoclonal antibody raised against amino acids 1-230 representing full length Soggy-1 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Soggy-1 (E-12) is available conjugated to agarose (sc-271563 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271563 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271563 PE), fluorescein (sc-271563 FITC), Alexa Fluor<sup>®</sup> 488 (sc-271563 AF488), Alexa Fluor<sup>®</sup> 546 (sc-271563 AF546), Alexa Fluor<sup>®</sup> 594 (sc-271563 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-271563 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-271563 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-271563 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

Soggy-1 (E-12) is recommended for detection of Soggy-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for Soggy-1 siRNA (h): sc-45755, Soggy-1 siRNA (m): sc-45756, Soggy-1 shRNA Plasmid (h): sc-45755-SH, Soggy-1 shRNA Plasmid (m): sc-45756-SH, Soggy-1 shRNA (h) Lentiviral Particles: sc-45755-V and Soggy-1 shRNA (m) Lentiviral Particles: sc-45756-V.

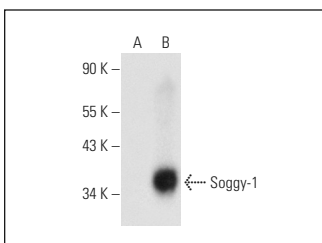
Molecular Weight of Soggy-1: 25-35 kDa.

Positive Controls: mouse testis extract: sc-2405 or Soggy-1 (m): 293T Lysate: sc-127566.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



Soggy-1 (E-12): sc-271563. Western blot analysis of Soggy-1 expression in non-transfected: sc-117752 (A) and mouse Soggy-1 transfected: sc-127566 (B) 293T 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.