## SANTA CRUZ BIOTECHNOLOGY, INC.

# Diversin (H-250): sc-98340



## BACKGROUND

Diversin, also known as ANKRD6 (ankyrin repeat domain 6), is a 727 amino acid protein that contains 8 ankyrin repeats and belongs to the ankyrin repeat domain protein family. Members of the ankyrin repeat domain family facilitate protein-protein interactions and function as adaptors of signaling pathways. Expressed in a developmentally-regulated manner and at highest levels in the brain, diversin is believed to play a role in brain development. Via its ankyrin repeats, diversin can directly interact with Dvl (dishevelled), an interaction that is essential for the activation of noncanonical Wnt signaling. In addition, diversin contains a C-terminal domain that binds axin/conductin and a casein kinase-binding domain in its central region that specifically binds casein kinase lɛ. Through the action of these additional domains, diversin may also facilitate canonical Wnt signaling. Due to alternative splicing events, three diversin isoforms exist.

## REFERENCES

- 1. Nagase, T., et al. 1999. Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 63-70.
- Tissir, F., et al. 2002. Expression of the ankyrin repeat domain 6 gene (Ankrd6) during mouse brain development. Dev. Dyn. 224: 465-469.
- 3. Schwarz-Romond, T., et al. 2002. The ankyrin repeat protein diversin recruits casein kinase I $\epsilon$  to the  $\beta$ -catenin degradation complex and acts in both canonical Wnt and Wnt/JNK signaling. Genes Dev. 16: 2073-2084.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610583. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Katoh, M., et al. 2005. Identification and characterization of rat Ankrd6 gene in silico. Int. J. Mol. Med. 15: 359-363.
- 6. Katoh, Y., et al. 2006. Comparative integromics on FAT1, FAT2, FAT3 and FAT4. Int. J. Mol. Med. 18: 523-528.
- Moeller, H., et al. 2006. Diversin regulates heart formation and gastrulation movements in development. Proc. Natl. Acad. Sci. USA 103: 15900-15905.

## CHROMOSOMAL LOCATION

Genetic locus: ANKRD6 (human) mapping to 6q15; Ankrd6 (mouse) mapping to 4 A5.

#### SOURCE

Diversin (H-250) is a rabbit polyclonal antibody raised against amino acids 231-480 mapping within an internal region of Diversin of human origin.

## PRODUCT

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

### **RESEARCH USE**

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

#### APPLICATIONS

Diversin (H-250) is recommended for detection of Diversin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 Diversin siRNA (h): sc-95219, Diversin siRNA (m): sc-143050, Diversin shRNA Plasmid (h): sc-95219-SH, Diversin shRNA Plasmid (m): sc-143050-SH, Diversin shRNA (h) Lentiviral Particles: sc-95219-V and Diversin shRNA (m) Lentiviral Particles: sc-143050-V.

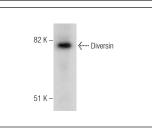
Molecular Weight of Diversin: 80 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218, HeLa whole cell lysate: sc-2200 or 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.





Diversin (H-250): sc-98340. Western blot analysis of Diversin expression in SK-BR-3 whole cell lysate.

#### **STORAGE**

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

MONOS Satisfation Guaranteed

Try **Diversin (G-9): sc-365390**, our highly recommended monoclonal alternative to Diversin (H-250).