## SANTA CRUZ BIOTECHNOLOGY, INC.

# IGSF9 (N-14): sc-240582



## BACKGROUND

Ig (immunoglobulin) superfamily members exhibit functional characteristics including immune responses, growth factor signaling and cell adhesion. IGSF9 (immunoglobulin superfamily, member 9), also known as Nrt1 or IGSF9A, is a 1,179 amino acid single-pass type I membrane protein expressed in a wide variety of fetal tissues at 8 and 14 weeks of gestation. Belonging to the immunoglobulin superfamily and the Turtle family, IGSF9 is thought to play a role in dendrite outgrowth and synapse maturation. IGSF9 contains two fibronectin type-III domains and five Ig-like (immunoglobulin-like) domains. IGSF9 interacts with MAGI-2 and Shank 1, both of which contain SH3 (Srchomology 3) domains. Protein-protein interactions are central events in cellular signal transduction and are often mediated by SH3 domains. IGSF9 is encoded by a gene located on human chromosome 1q23.2 and mouse chromosome 1 H3.

### REFERENCES

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- Luo, K., et al. 2001. DIgR1, a novel membrane receptor of the immunoglobulin gene superfamily, is preferentially expressed by antigen-presenting cells. Biochem. Biophys. Res. Commun. 287: 35-41.
- 4. Doudney, K., et al. 2002. Cloning and characterization of Igsf9 in mouse and human: a new member of the immunoglobulin superfamily expressed in the developing nervous system. Genomics 79: 663-670.
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- Robakis, T., et al. 2008. An internal signal sequence directs intramembrane proteolysis of a cellular immunoglobulin domain protein. J. Biol. Chem. 283: 36369-36376.
- Ferguson, K., et al. 2009. The conserved Ig superfamily member Turtle mediates axonal tiling in *Drosophila*. J. Neurosci. 29: 14151-14159.

#### CHROMOSOMAL LOCATION

Genetic locus: IGSF9 (human) mapping to 1q23.2; Igsf9 (mouse) mapping to 1 H3.

#### SOURCE

IGSF9 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of IGSF9 of human origin.

### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

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

Blocking peptide available for competition studies, sc-240582 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

IGSF9 (N-14) is recommended for detection of IGSF9 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); non cross-reactive with other IGSF family members.

IGSF9 (N-14) is also recommended for detection of IGSF9 in additional species, including canine and bovine.

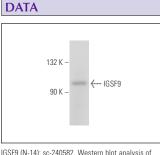
Suitable for use as control antibody for IGSF9 siRNA (h): sc-88823, IGSF9 siRNA (m): sc-146193, IGSF9 shRNA Plasmid (h): sc-88823-SH, IGSF9 shRNA Plasmid (m): sc-146193-SH, IGSF9 shRNA (h) Lentiviral Particles: sc-88823-V and IGSF9 shRNA (m) Lentiviral Particles: sc-146193-V.

Molecular Weight of IGSF9: 127 kDa.

Positive Controls: mouse brain extract: sc-2253.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.



IGSF9 (N-14): sc-240582. Western blot analysis of IGSF9 expression in mouse brain tissue extract.

#### **RESEARCH USE**

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