

# UNC5H1 (E-15): sc-67902

## BACKGROUND

The UNC5H family of proteins act as transmembrane receptors for netrin-1 and play a crucial role in axon guidance and migration of neural cells. Additionally, when cleaved by a caspase to produce an intracellular fragment containing a death domain, UNC5H receptors induce apoptosis. This activity is blocked by the binding of netrin-1. In the absence of netrin-1, UNC5H receptors act as tumor suppressors by inhibiting anchorage-independent growth and invasion, but mutation of these receptors provides a potential mechanism for tumorigenicity. The expression of UNC5H receptors is down-regulated in multiple carcinomas, including colorectal, breast, ovary, uterus, stomach, lung and kidney cancers. UNC5H1, also known as UNC5HA (unc-5 homolog A), is a member of the UNC5H family of proteins and is localized to the cell membrane. Three isoforms of UNC5H1 exist due to alternative splicing events.

## REFERENCES

1. Llambi, F., et al. 2001. Netrin-1 acts as a survival factor via its receptors Unc5H and DCC. *EMBO J.* 20: 2715-2722.
2. Komatsuzaki, K., et al. 2002. Modulation of  $G_{i\alpha 2}$  signaling by the axonal guidance molecule Unc5H2. *Biochem. Biophys. Res. Commun.* 297: 898-905.
3. Thiebault, K., et al. 2003. The netrin-1 receptors Unc5H are putative tumor suppressors controlling cell death commitment. *Proc. Natl. Acad. Sci. USA* 100: 4173-4178.

## CHROMOSOMAL LOCATION

Genetic locus: UNC5A (human) mapping to 5q35.2; Unc5a (mouse) mapping to 13 B1.

## SOURCE

UNC5H1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of UNC5H1 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.

Blocking peptide available for competition studies, sc-67902 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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) or our catalog for detailed protocols and support products.

## APPLICATIONS

UNC5H1 (E-15) is recommended for detection of Netrin receptor Unc-5 homolog A precursor 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).

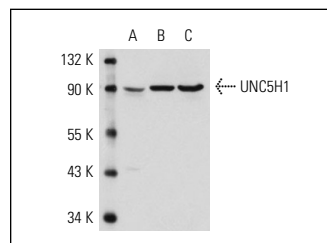
UNC5H1 (E-15) is also recommended for detection of Netrin receptor Unc-5 homolog A precursor in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for UNC5H1 siRNA (h): sc-63185, UNC5H1 siRNA (m): sc-63186, UNC5H1 shRNA Plasmid (h): sc-63185-SH, UNC5H1 shRNA Plasmid (m): sc-63186-SH, UNC5H1 shRNA (h) Lentiviral Particles: sc-63185-V and UNC5H1 shRNA (m) Lentiviral Particles: sc-63186-V.

Molecular Weight of UNC5H1: 93 kDa.

Positive Controls: Daudi cell lysate: sc-2415, mouse brain extract: sc-2253 or rat brain extract: sc-2392.

## DATA



UNC5H1 (E-15): sc-67902. Western blot analysis of UNC5H1 expression in Daudi (A) whole cell lysate and rat brain (B) and mouse brain (C) tissue extracts.

## SELECT PRODUCT CITATIONS

1. Forrest, C.M., et al. 2013. Involvement of the proteasome and caspase activation in hippocampal long-term depression induced by the serine protease subtilisin. *Neuroscience* 231: 233-246.
2. Forrest, C.M., et al. 2013. Prenatal inhibition of the tryptophan-kynurenine pathway alters synaptic plasticity and protein expression in the rat hippocampus. *Brain Res.* 1504: 1-15.