

# NEGR1 (H-12): sc-393293

## BACKGROUND

NEGR1 (neuronal growth regulator 1), also known as neurotractin, IGLON4 (IgLON family member 4), Ntra, DMML2433 or KILON, is a 354 amino acid protein belonging to the IgLON family and immunoglobulin superfamily. NEGR1 may play a role in cell adhesion and regenerative axon sprouting in the mammalian brain and is highly expressed in adult hippocampus, cerebellum and brainstem, with much lower levels found in cerebellum. Localizing to the cell membrane at the glycosylphosphatidylinositol anchor (GPI) anchor, NEGR1 contains three Ig-like C2-type (immunoglobulin-like) domains. NEGR1 is encoded by a gene that maps to human chromosome 1p31.1, and is one of several loci associated with body mass index (BMI), possibly contributing to the development of obesity.

## CHROMOSOMAL LOCATION

Genetic locus: NEGR1 (human) mapping to 1p31.1; Negr1 (mouse) mapping to 3 H4.

## SOURCE

NEGR1 (H-12) is a mouse monoclonal antibody raised against amino acids 38-218 mapping near the N-terminus of NEGR1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NEGR1 (H-12) is available conjugated to agarose (sc-393293 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393293 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393293 PE), fluorescein (sc-393293 FITC), Alexa Fluor® 488 (sc-393293 AF488), Alexa Fluor® 546 (sc-393293 AF546), Alexa Fluor® 594 (sc-393293 AF594) or Alexa Fluor® 647 (sc-393293 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393293 AF680) or Alexa Fluor® 790 (sc-393293 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

NEGR1 (H-12) is recommended for detection of NEGR1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 NEGR1 siRNA (h): sc-88093, NEGR1 siRNA (m): sc-149901, NEGR1 shRNA Plasmid (h): sc-88093-SH, NEGR1 shRNA Plasmid (m): sc-149901-SH, NEGR1 shRNA (h) Lentiviral Particles: sc-88093-V and NEGR1 shRNA (m) Lentiviral Particles: sc-149901-V.

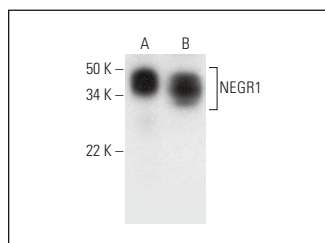
Molecular Weight of NEGR1: 39 kDa.

Positive Controls: human hippocampus tissue extract, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

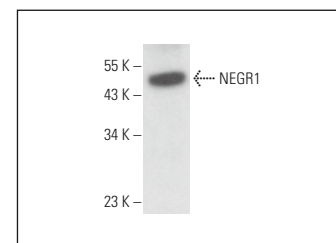
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



NEGR1 (H-12): sc-393293. Western blot analysis of NEGR1 expression in human hippocampus (A) and mouse brain (B) tissue extracts.



NEGR1 (H-12): sc-393293. Western blot analysis of NEGR1 expression in rat brain tissue extract.

## SELECT PRODUCT CITATIONS

1. Vanaveski, T., et al. 2017. Promoter-specific expression and genomic structure of IgLON family genes in mouse. *Front. Neurosci.* 11: 38.
2. Karis, K., et al. 2018. Altered expression profile of IgLON family of neural cell adhesion molecules in the dorsolateral prefrontal cortex of schizophrenic patients. *Front. Mol. Neurosci.* 11: 8.
3. Jagomäe, T., et al. 2021. Alternative promoter use governs the expression of IgLON cell adhesion molecules in histogenetic fields of the embryonic mouse brain. *Int. J. Mol. Sci.* 22: 6955.
4. Kaare, M., et al. 2022. Depression-associated NEGR1 gene-deficiency induces alterations in the monoaminergic neurotransmission enhancing time-dependent sensitization to amphetamine in male mice. *Brain Sci.* 12: 1696.

## 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.