

# netrin-4 (A-7): sc-365280

## BACKGROUND

Netrin proteins are a family of Laminin-related secreted proteins that provide guidance signals for axonal growth and cell migration during development. Netrin signaling is dependent on the concentration of calcium outside the cell and the level of PKA activity. In axonal cells, a reduction in PKA activity converts the responsiveness of the axons to the netrin proteins, as the cells are repelled, rather than attracted, by the netrin gradient. Netrin-4 is related to the Laminin  $\beta$  chains, and is therefore also designated  $\beta$ -netrin. It is present in the basement membranes of the vasculature, lateral olfactory tract, kidney and ovary. In humans, the gene encoding for the netrin-4 protein is localized to chromosome 12q22. High levels of netrin-4 mRNA have also been detected in many cells and tissues, including cerebral cortex, hippocampus, amygdaloid nuclei and purkinje cells. Netrin-4 is important in neural, kidney and vascular development.

## CHROMOSOMAL LOCATION

Genetic locus: NTN4 (human) mapping to 12q22.

## SOURCE

netrin-4 (A-7) is a mouse monoclonal antibody raised against amino acids 399-628 mapping at the C-terminus of netrin-4 of human origin.

## PRODUCT

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

netrin-4 (A-7) is available conjugated to agarose (sc-365280 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365280 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365280 PE), fluorescein (sc-365280 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365280 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365280 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365280 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365280 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365280 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365280 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

netrin-4 (A-7) is recommended for detection of netrin-4 of 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), immunohistochemistry (including paraffin-embedded sections) (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 netrin-4 siRNA (h): sc-44504, netrin-4 shRNA Plasmid (h): sc-44504-SH and netrin-4 shRNA (h) Lentiviral Particles: sc-44504-V.

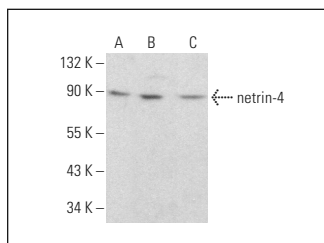
Molecular Weight of netrin-4: 70 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, HeLa whole cell lysate: sc-2200 or Y79 cell lysate: sc-2240.

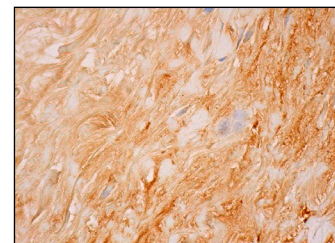
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



netrin-4 (A-7): sc-365280. Western blot analysis of netrin-4 expression in IMR-32 (A), F9 (B) and P19 (C) whole cell lysates.



netrin-4 (A-7): sc-365280. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing extracellular staining of connective tissue.

## SELECT PRODUCT CITATIONS

- Enoki, Y., et al. 2014. Netrin-4 derived from murine vascular endothelial cells inhibits osteoclast differentiation *in vitro* and prevents bone loss *in vivo*. *FEBS Lett.* 588: 2262-2269.
- Yi, L., et al. 2022. NTN4 as a prognostic marker and a hallmark for immune infiltration in breast cancer. *Sci. Rep.* 12: 10567.
- Lu, C., et al. 2022. Comprehensive analysis of cellular senescence-related genes in the prognosis, tumor microenvironment, and immunotherapy/chemotherapy of clear cell renal cell carcinoma. *Front. Immunol.* 13: 934243.

## 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.