

# Artn (R-17): sc-9331

## BACKGROUND

Neurotrophic factors are soluble proteins that are involved in the development and maintenance of the peripheral and central nervous systems. Glial cell line-derived neurotrophic factor (GDNF), neurturin (NTN) and persephin (PSP) are members of a family of neurotrophic factors that is distantly related to the TGF $\beta$  superfamily. PSP, like GDNF and NTN, promotes survival and inhibits degeneration of dopaminergic neurons. Unlike GDNF and NTN, however, PSP does not appear to support peripheral neurons. An additional member of the GDNF ligand family, artemin (Artn), interacts preferentially with the GFR $\alpha$ -3-Ret receptor complex, but it can also interact with the GFR $\alpha$ -1-Ret receptor complex, which is the preferred receptor of GDNF. Artn is also capable of supporting peripheral and central neurons.

## REFERENCES

1. Buj-Bello, A., et al. 1995. GDNF is an age-specific survival factor for sensory and autonomic neurons. *Neuron* 15: 821-828.
2. Ebendal, T., et al. 1995. Glial cell line-derived neurotrophic factor stimulates fiber formation and survival in cultured neurons from peripheral autonomic ganglia. *J. Neurosci. Res.* 40: 276-284.
3. Shen, L., et al. 1997. Recent progress in studies of neurotrophic factors and their clinical implications. *J. Mol. Med.* 75: 637-644.
4. Pachnis, V., et al. 1998. Role of the RET signal transduction pathway in development of the mammalian enteric nervous system. *Am. J. Physiol.* 275: G183-G186.
5. Milbrandt, J., et al. 1998. Persephin, a novel neurotrophic factor related to GDNF and neurturin. *Neuron* 20: 245-253.
6. Baloh, R.H., et al. 1998. Artemin, a novel member of the GDNF ligand family, supports peripheral and central neurons and signals through the GFR $\alpha$ -3-RET receptor complex. *Neuron* 21: 1291-1302.

## CHROMOSOMAL LOCATION

Genetic locus: ARTN (human) mapping to 1p34.1; Artn (mouse) mapping to 4 D2.1.

## SOURCE

Artn (R-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Artn 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-9331 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.

## APPLICATIONS

Artn (R-17) is recommended for detection of all forms of Artn of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Artn (R-17) is also recommended for detection of all forms of Artn in additional species, including porcine.

Suitable for use as control antibody for Artn siRNA (h): sc-41966, Artn siRNA (m): sc-41967, Artn shRNA Plasmid (h): sc-41966-SH, Artn shRNA Plasmid (m): sc-41967-SH, Artn shRNA (h) Lentiviral Particles: sc-41966-V and Artn shRNA (m) Lentiviral Particles: sc-41967-V.

Molecular Weight of Artn: 27 kDa.

## 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™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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™ Mounting Medium: sc-24941.

## 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.



Try **Artn (B0-74X): sc-73715**, our highly recommended monoclonal alternative to Artn (R-17).