

Wnt-11 (C-20): sc-23862

BACKGROUND

The Wnt genes belong to a family of protooncogenes with at least 13 known members that are expressed in species ranging from *Drosophila* to man. The name Wnt denotes the relationship of this family to the *Drosophila* segment polarity gene "wingless" and to its vertebrate ortholog, Int-1, a mouse protooncogene. Transcription of Wnt family genes appears to be developmentally regulated in a precise temporal and spatial manner. The Wnt genes encode cysteine-rich putative glycoproteins, which have features typical of secreted growth factors. Wnt-11 is expressed in the tips of ureteric buds and in the perichondrium, a stem cell-like layer that surrounds the future bones and directs their growth and regeneration. Wnt-11 activity is required for cells to undergo correct convergent extension movements during gastrulation. Human Wnt-11 is also expressed in the lung mesenchyme, the urorectal septum, the urogenital folds, the labioscrotal swellings, and the cortex of the adrenal gland. Unlike other Wnt family members, Wnt-11 is not expressed in the neuroepithelium of the central nervous system. Wnt-11, along with Wnt-8c is expressed in the posterior region of the chick embryo in the caudal paraxial mesoderm that underlies the prospective caudal neural plate. The gene which encodes Wnt-11 maps to human chromosome 11q13.5.

REFERENCES

1. Gavin, B.J., et al. 1990. Expression of multiple novel Wnt-1/int-1-related genes during fetal and adult mouse development. *Genes Dev.* 4: 2319-2332.
2. Muhr, J., et al. 1997. Assignment of early caudal identity to neural plate cells by a signal from caudal paraxial mesoderm. *Neuron* 19: 487-502.
3. Lako, M., et al. 1998. Isolation, characterisation and embryonic expression of Wnt-11, a gene which maps to 11q13.5 and has possible roles in the development of skeleton, kidney and lung. *Gene* 219: 101-110.
4. Heisenberg, C.P., et al. 2000. Silberblick/Wnt-11 mediates convergent extension movements during zebrafish gastrulation. *Nature* 405: 76-81.
5. Nordstrom, U., et al. 2002. Progressive induction of caudal neural character by graded Wnt signaling. *Nature Neurosci.* 5: 525-532.

CHROMOSOMAL LOCATION

Genetic locus: WNT11 (human) mapping to 11q13.5; Wnt11 (mouse) mapping to 7 E2.

SOURCE

Wnt-11 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Wnt-11 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23862 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Wnt-11 (C-20) is recommended for detection of Wnt-11 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).

Wnt-11 (C-20) is also recommended for detection of Wnt-11 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Wnt-11 siRNA (h): sc-41120, Wnt-11 siRNA (m): sc-41121, Wnt-11 shRNA Plasmid (h): sc-41120-SH, Wnt-11 shRNA Plasmid (m): sc-41121-SH, Wnt-11 shRNA (h) Lentiviral Particles: sc-41120-V and Wnt-11 shRNA (m) Lentiviral Particles: sc-41121-V.

Molecular Weight of Wnt-11: 45 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.

SELECT PRODUCT CITATIONS

1. Abdel-Hakeem, A.K., et al. 2008. Mechanisms of impaired nephrogenesis with fetal growth restriction: altered renal transcription and growth factor expression. *Am. J. Obstet. Gynecol.* 199: 252.e1-252.e7.

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 or our catalog for detailed protocols and support products.



Try **Wnt-11 (C-8): sc-365032** or **Wnt-11 (C-7): sc-365033**, our highly recommended monoclonal alternatives to Wnt-11 (C-20).