

Wnt-11 (C-7): sc-365033

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 proto-oncogene. 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. *Nat. Neurosci.* 5: 525-532.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 164975. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

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

SOURCE

Wnt-11 (C-7) is a mouse monoclonal antibody raised against amino acids 116-210 mapping within an internal region of Wnt-11 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Wnt-11 (C-7) is recommended for detection of precursor and mature Wnt-11 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).

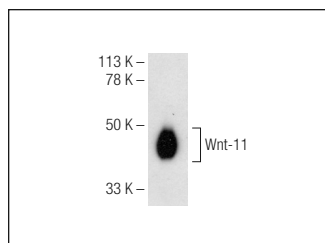
Suitable for use as control antibody for Wnt-11 siRNA (h): sc-41120, Wnt-11 siRNA (m): sc-41121, Wnt-11 shRNA Plasmid (h): sc-41120-SH, Wnt-11 shRNA Plasmid (m): sc-41121-SH, Wnt-11 shRNA (h) Lentiviral Particles: sc-41120-V and Wnt-11 shRNA (m) Lentiviral Particles: sc-41121-V.

Molecular Weight of Wnt-11: 45 kDa.

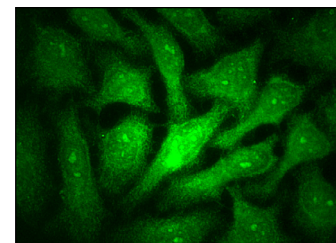
RECOMMENDED SUPPORT REAGENTS

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



Wnt-11 (C-7): sc-365033. Western blot analysis of human recombinant Wnt-11.



Wnt-11 (C-7): sc-365033. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

SELECT PRODUCT CITATIONS

1. Zhang, D., et al. 2020. *In vitro* induction and *in vivo* engraftment of kidney organoids derived from human pluripotent stem cells. *Exp. Ther. Med.* 20: 1307-1314.

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.