

Wnt-5a (C-16): sc-23698

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, *Int1*, 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. Northern blot analysis detects expression of Wnt-5a in brain, lung and heart. At least five distinct Wnt-5a transcripts are observed, which are due to transcript variability 5' to the initiation methionine. *In situ* hybridization detects a complex spatial and temporal pattern of Wnt-5a in the mouse, including expression in the developing central nervous system, limbs, facial processes and the posterior region of the fetus. Human frizzled-5 is the receptor for the Wnt-5a ligand. It is suggested that Wnt-5a augments primitive hematopoietic development *in vivo* and represents an *in vivo* regulator of hematopoietic stem cell function in the human.

CHROMOSOMAL LOCATION

Genetic locus: WNT5A (human) mapping to 3p14.3; Wnt5a (mouse) mapping to 14 A3.

SOURCE

Wnt-5a (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Wnt-5a 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. Wnt-5a (C-16) is available conjugated to agarose (sc-23698 AC), 500 µg/0.25 ml agarose in 1 ml, for IP.

Blocking peptide available for competition studies, sc-23698 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Wnt-5a (C-16) is recommended for detection of Wnt-5a 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-5a (C-16) is also recommended for detection of Wnt-5a in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Wnt-5a siRNA (h): sc-41112, Wnt-5a siRNA (m): sc-41113, Wnt-5a shRNA Plasmid (h): sc-41112-SH, Wnt-5a shRNA Plasmid (m): sc-41113-SH, Wnt-5a shRNA (h) Lentiviral Particles: sc-41112-V and Wnt-5a shRNA (m) Lentiviral Particles: sc-41113-V.

Molecular Weight of Wnt-5a: 39 kDa.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SELECT PRODUCT CITATIONS

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- Al-kalaly, A., et al. 2009. The assessment of cell cycle genes in the rat mandibular condyle. *Arch. Oral Biol.* 54: 470-478.
- Bilkovski, R., et al. 2010. Role of WNT-5a in the determination of human mesenchymal stem cells into preadipocytes. *J. Biol. Chem.* 285: 6170-6178.
- Foronjy, R., et al. 2010. The divergent roles of secreted frizzled related protein-1 (SFRP1) in lung morphogenesis and emphysema. *Am. J. Pathol.* 177: 598-607.
- Kobayashi, M., et al. 2012. Intratumoral Wnt2B expression affects tumor proliferation and survival in malignant pleural mesothelioma patients. *Exp. Ther. Med.* 3: 952-958.

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.


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