

Wnt-7a (Q-12): sc-26360

BACKGROUND

The Wnt gene family encodes secreted signaling molecules that bind to frizzled receptors and influence oncogenesis and developmental processes, including regulation of cell fate and patterning during embryogenesis. The Wnt family has two functional classes according to their biological activities: Wnts that signal through a Wnt-1/wingless pathway by stabilizing cytoplasmic β -catenin; and Wnts that stimulate intracellular Ca^{2+} release and activate two kinases, CamKII and PKC, in a G protein-dependent manner. Wnt-7a guides the development of the anterior-posterior axis in the female reproductive tract and influences uterine smooth muscle patterning and maintenance of adult uterine function. The human Wnt-7a gene maps to chromosome 3p25.1. The human Wnt-7b gene maps to chromosome 22q13.31.

REFERENCES

1. Ikegawa, S., et al. 1996. Isolation, characterization and chromosomal assignment of the human Wnt7a gene. *Cytogenet. Cell Genet.* 74: 149-152.
2. Johnson, R.L., et al. 1997. Molecular models for vertebrate limb development. *Cell* 90: 979-990.

CHROMOSOMAL LOCATION

Genetic locus: WNT7A (human) mapping to 3p25.1; Wnt7a (mouse) mapping to 6 D1.

SOURCE

Wnt-7a (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Wnt-7a of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26360 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Wnt-7a (Q-12) is recommended for detection of precursor and mature Wnt-7a 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), 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).

Wnt-7a (Q-12) is also recommended for detection of precursor and mature Wnt-7a in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Wnt-7a siRNA (h): sc-41114, Wnt-7a siRNA (m): sc-41115, Wnt-7a shRNA Plasmid (h): sc-41114-SH, Wnt-7a shRNA Plasmid (m): sc-41115-SH, Wnt-7a shRNA (h) Lentiviral Particles: sc-41114-V and Wnt-7a shRNA (m) Lentiviral Particles: sc-41115-V.

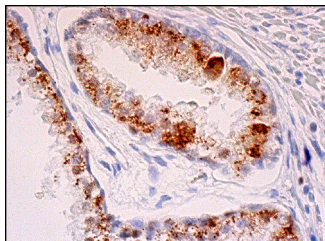
Molecular Weight of Wnt-7a: 39 kDa.

Positive Controls: BT-20 cell lysate: sc-2223.

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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Wnt-7a (Q-12): sc-26360. Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Lindberg, D., et al. 2007. Mutational analyses of WNT7A and HDAC11 as candidate tumour suppressor genes in sporadic malignant pancreatic endocrine tumours. *Clin. Endocrinol.* 66: 110-114.
2. Gaetje, R., et al. 2007. Characterization of WNT7A expression in human endometrium and endometriotic lesions. *Fertil. Steril.* 88: 1534-1540.
3. Merritt, M.A., et al. 2009. Expression profiling identifies genes involved in neoplastic transformation of serous ovarian cancer. *BMC Cancer* 9: 378.

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.

MONOS
Satisfaction
Guaranteed

Try **Wnt-7a/b (H-8): sc-365459** or **Wnt-7a (E-9): sc-365665**, our highly recommended monoclonal alternatives to Wnt-7a (Q-12).