

# Wnt-7a (h2): 293T Lysate: sc-176093

## 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  $\beta$ -catenin, and Wnts that stimulate intracellular  $\text{Ca}^{2+}$  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.

## REFERENCES

1. Ikegawa, S., Kumano, Y., Okui, K., Fujiwara, T., Takahashi, E. and Nakamura, Y. 1996. Isolation, characterization and chromosomal assignment of the human WNT7A gene. *Cytogenet. Cell Genet.* 74: 149-152.
2. Johnson, R.L. and Tabin, C.J. 1997. Molecular models for vertebrate limb development. *Cell* 90: 979-990.
3. Kuhl, M., Sheldahl, L.C., Park, M., Miller, J.R. and Moon, R.T. 2000. The Wnt/ $\text{Ca}^{2+}$  pathway: a new vertebrate Wnt signaling pathway takes shape. *Trends Genet.* 16: 279-283.
4. Li, S., Chiang, T.C., Davis, G.R., Williams, R.M., Wilson, V.P. and McLachlan, J.A. 2001. Decreased expression of Wnt7a mRNA is inversely associated with the expression of estrogen receptor- $\alpha$  in human uterine leiomyoma. *J. Clin. Endocr. Metab.* 86: 454-457.
5. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601570. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. LocusLink Report (LocusID: 7476). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: WNT7A (human) mapping to 3p25.1.

## PRODUCT

Wnt-7a (h2): 293T Lysate represents a lysate of human Wnt-7a transfected 293T cells and is provided as 100  $\mu\text{g}$  protein in 200  $\mu\text{l}$  SDS-PAGE buffer.

## APPLICATIONS

Wnt-7a (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Wnt-7a antibodies. Recommended use: 10-20  $\mu\text{l}$  per lane.

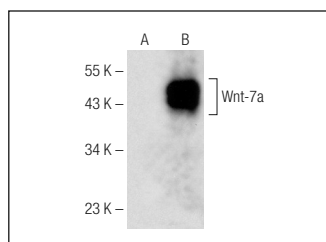
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Wnt-7a/b (H-8): sc-365459 is recommended as a positive control antibody for Western Blot analysis of enhanced human Wnt-7a expression in Wnt-7a transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

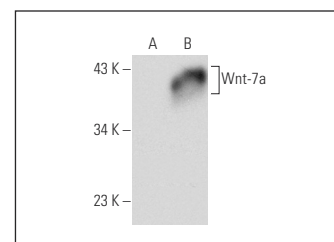
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



Wnt-7a/b (H-8): sc-365459. Western blot analysis of Wnt-7a expression in non-transfected: sc-117752 (A) and human Wnt-7a transfected: sc-176093 (B) 293T whole cell lysates.



Wnt-7a (E-9): sc-365665. Western blot analysis of Wnt-7a expression in non-transfected: sc-117752 (A) and human Wnt-7a transfected: sc-176093 (B) 293T whole cell lysates.

## STORAGE

Store at  $-20^{\circ}\text{C}$ . Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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](http://www.scbt.com) for detailed protocols and support products.