

# Dhh (h): 293T Lysate: sc-114457

## BACKGROUND

The *Drosophila* segment polarity gene hedgehog (hh) encodes a precursor protein which undergoes autocleavage to generate amino and carboxy terminal peptides. Both proteins are secreted and appear to function in embryonic and imaginal disc patterning. Several vertebrate homologs of *Drosophila* hh have been identified. These include Sonic hedgehog (Shh) (alternatively designated Vhh-1), Desert hedgehog (Dhh) and Indian hedgehog (Ihh). Each contain amino terminal signal peptides and apparently function as secreted proteins involved in the mediation of various cell-cell interactions. Shh resembles *Drosophila* hh in that it is processed to generate an amino terminal secreted peptide that is retained at or near the cell surface and a carboxy terminal glycosylated more diffusible peptide.

## REFERENCES

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2. Li, W., Ohlmeyer, J.T., Lane, M.E. and Kalderon, D. 1995. Function of protein kinase A in hedgehog signal transduction and *Drosophila* imaginal disc development. *Cell* 80: 553-562.
3. Johnson, R.L. and Tabin, C. 1995. The long and short of hedgehog signaling. *Cell* 81: 313-316.
4. Roelink, H., Porter, J.A., Chiang, C., Tanabe, Y., Chang, D.T., Beachy, P.A. and Jessell, T.M. 1995. Floor plate and motor neuron induction by different concentrations of the amino-terminal cleavage product of sonic hedgehog autoproteolysis. *Cell* 81: 445-455.
5. Fan, C.M., Porter, J.A., Chiang, C., Chang, D.T., Beachy, P.A. and Tessier-Lavigne, M. 1995. Long-range sclerotome induction by sonic hedgehog: direct role of the amino-terminal cleavage product and modulation by the cyclic AMP signaling pathway. *Cell* 81: 457-465.
6. Ericson, J., Muhr, J., Placzek, M., Lints, T., Jessell, T.M. and Edlund, T. 1995. Sonic hedgehog induces the differentiation of ventral forebrain neurons: a common signal for ventral patterning within the neural tube. *Cell* 81: 747-756.
7. Marti, E., Bumcrot, D.A., Takada, R. and McMahon, A.P. 1995. Requirement of 19K form of Sonic hedgehog for induction of distinct ventral cell types in CNS explants. *Nature* 375: 322-325.

## CHROMOSOMAL LOCATION

Genetic locus: DHH (human) mapping to 12q13.12.

## PRODUCT

Dhh (h): 293T Lysate represents a lysate of human Dhh transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

Dhh (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Dhh antibodies. Recommended use: 10-20 µl per lane.

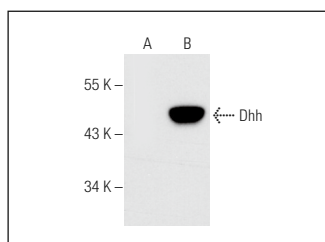
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Dhh (F-8): sc-137101 is recommended as a positive control antibody for Western Blot analysis of enhanced human Dhh expression in Dhh transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

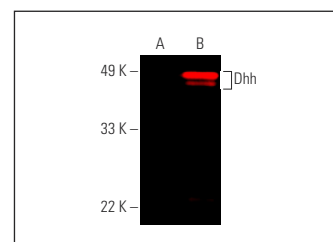
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-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.

## DATA



Dhh (F-8): sc-137101. Western blot analysis of Dhh expression in non-transfected: sc-117752 (A) and human Dhh transfected: sc-114457 (B) 293T whole cell lysates.



Dhh (F-9): sc-271168. Near-infrared western blot analysis of Dhh expression in non-transfected: sc-117752 (A) and human Dhh transfected: sc-114457 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.

## 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.