

Lefty (h): 293T Lysate: sc-114109

BACKGROUND

The TGF β superfamily is composed of numerous growth and differentiation factors, including transforming growth factor (TGF) 1, 2 and 3; growth/differentiation factor (GDF) 1-9; Mullerian inhibiting substance (MIS); bone morphogenic protein (BMP) 2-8; glial cell line-derived neurotrophic factor (GDNF); Inhibin α , β -A, β -B and β -C; Lefty and Nodal. Members of the TGF superfamily are involved in embryonic development and adult tissue homeostasis. Lefty-A and Lefty-B are homologues of murine Lefty-1 and Lefty-2. Lefty-1 is required for left-right axis determination as a regulator of Lefty-2 and Nodal. It is a secreted protein expressed on the left side of developing embryos. The expression of Lefty-1 is mostly in the prospective floor plate (PFP), although weak expression can be seen in the lateral-plate mesoderm (LPM). It is involved in establishing left-right asymmetry of the organ systems of mammals. Lefty-A plays a role in endometrial bleeding. Mutations in this gene have been associated with left-right axis malformations, particularly in the heart and lungs. Some types of infertility have been associated with dysregulated expression of this gene in the endometrium.

REFERENCES

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4. Kothapalli, R., Buyuksal, I., Wu, S.O., Chegini, N. and Tabibzadeh, S. 1997. Detection of EBAF, a novel human gene of the transforming growth factor β superfamily association of gene expression with endometrial bleeding. *J. Clin. Invest.* 99: 2342-2350.
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6. Meno, C., Shimono, A., Saijoh, Y., Yashiro, K., Mochida, K., Ohishi, S., Noji, S., Kondoh, H. and Hamada, H. 1998. Lefty-1 is required for left-right determination as a regulator of Lefty-2 and Nodal. *Cell* 94: 287-297.

CHROMOSOMAL LOCATION

Genetic locus: LEFTY1/LEFTY2 (human) mapping to 1q42.12.

PRODUCT

Lefty (h): 293T Lysate represents a lysate of human Lefty transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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

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

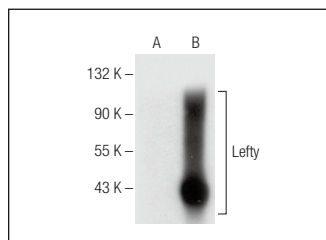
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Lefty (D-6): sc-365845 is recommended as a positive control antibody for Western Blot analysis of enhanced human Lefty expression in Lefty 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 κ BP-HRP: sc-516102 or m-IgG κ 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



Lefty (D-6): sc-365845. Western blot analysis of Lefty expression in non-transfected: sc-117752 (A) and human Lefty transfected: sc-114109 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.