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# LHX4 (m): 293T Lysate: sc-121333

## BACKGROUND

The LIM domain (a zinc-finger structure) is a protein-protein interaction motif found in several protein types, including homeodomain transcription factors and kinases, which has a role in many cellular processes. The LIM family of homeodomain proteins plays a role in organismal differentiation and development. Specifically, LHX4, and closely related LHX3, play essential roles in multiple developmental stages of the pituitary gland in mice. The LHX4 gene is expressed in murine fetal brain, spinal cord and cerebral cortex. In addition, LHX4 is expressed in the cerebral cortex and in the motor neurons of the CNS in adult rodents. A specific murine LHX4 gene mutation results in a short stature phenotype, pituitary and cerebellar defects and sella turcica malformations. The LHX4 gene may be implicated in the t(1;4)(q25;q32) chromosomal translocation, which is associated with acute lymphoblastic leukemia. The LHX4 gene is also expressed in leukemic cells and may activate leukemogenesis. The human LHX4 gene maps to chromosome 1q25.2 and encodes a 390 amino acid protein.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: *Lhx4* (mouse) mapping to 1 G3.

## PRODUCT

LHX4 (m): 293T Lysate represents a lysate of mouse LHX4 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## RESEARCH USE

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

## APPLICATIONS

LHX4 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive LHX4 antibodies. Recommended use: 10-20 µl per lane.

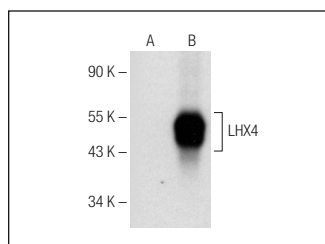
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

LHX4 (E-10): sc-374562 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse LHX4 expression in LHX4 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



LHX4 (E-10): sc-374562. Western blot analysis of LHX4 expression in non-transfected: sc-117752 (A) and mouse LHX4 transfected: sc-121333 (B) 293T whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.