

HoxA3 (h): 293 Lysate: sc-111371

BACKGROUND

The Hox proteins play a role in development and cellular differentiation by regulating downstream target genes. Specifically, the Hox proteins direct DNA-protein and protein-protein interactions that assist in determining the morphologic features associated with the anterior-posterior body axis. The mammalian HOX gene complex consists of 39 genes that are located on four linkage groups, which are dispersed over four chromosomes. HOX genes that occupy the same relative position along the 5' to 3' coordinate (*trans*-paralogous genes) are more similar in sequence and expression pattern than adjacent HOX genes on the same chromosome. HoxA3, in conjunction with Pax-1, mediates the development of the thymus, parathyroid gland and carotid body. Its expression in the third pharyngeal arch and pouch is required for development of the third arch artery, and homozygous null HoxA3 mutants lack the carotid body. HoxA3 also regulates hindbrain development by controlling the axon projection pattern of motor neurons and sensory neurons of the proximal and distal ganglia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HOXA3 (human) mapping to 7p15.2.

RESEARCH USE

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

PRODUCT

HoxA3 (h): 293 Lysate represents a lysate of human HoxA3 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

HoxA3 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive HoxA3 antibodies. Recommended use: 10-20 µl per lane.

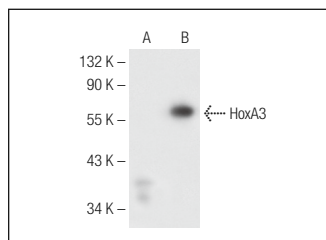
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

HoxA3 (F-7): sc-374237 is recommended as a positive control antibody for Western Blot analysis of enhanced human HoxA3 expression in HoxA3 transfected 293 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



HoxA3 (F-7): sc-374237. Western blot analysis of HoxA3 expression in non-transfected: sc-110760 (A) and human HoxA3 transfected: sc-111371 (B) 293 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 for detailed protocols and support products.