

Hop (m): 293T Lysate: sc-120878

BACKGROUND

Hop encodes a homeodomain-containing protein derived from several transcript splice variants. Nkx2.5-mediated Hop gene expression initiates early during cardiogenesis and continues in cardiomyocytes throughout embryonic and postnatal development. Hop associates with and inhibits transacting serum response factor (SRF)-dependent transcription, which regulates the opposing processes of proliferation and myogenesis. Hop modulation of SRF activity ensures a balance between cardiomyocyte proliferation and differentiation during cardiac morphogenesis.

REFERENCES

1. Chen, F., et al. 2002. Hop is an unusual homeobox gene that modulates cardiac development. *Cell* 110: 713-723.
2. Shin, C.H., et al. 2002. Modulation of cardiac growth and development by Hop, an unusual homeodomain protein. *Cell* 110: 725-735.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607275. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Torrado, M., et al. 2003. Myocardin mRNA is augmented in the failing myocardium: expression profiling in the porcine model and human dilated cardiomyopathy. *J. Mol. Med.* 81: 566-577.
5. Hamamori, Y., et al. 2003. HATs off to Hop: recruitment of a class I histone deacetylase incriminates a novel transcriptional pathway that opposes cardiac hypertrophy. *J. Clin. Invest.* 112: 824-826.
6. Kook, H., et al. 2003. Cardiac hypertrophy and histone deacetylase-dependent transcriptional repression mediated by the atypical homeodomain protein Hop. *J. Clin. Invest.* 112: 863-871.
7. Kook, H., et al. 2003. Hopping to the beat. Hop regulation of cardiac gene expression. *Trends Cardiovasc. Med.* 13: 261-264.
8. Lemaire, F., et al. 2004. Loss of Hop tumour suppressor expression in head and neck squamous cell carcinoma. *Br. J. Cancer* 91: 258-261.

CHROMOSOMAL LOCATION

Genetic locus: Hopx (mouse) mapping to 5 C3.3.

PRODUCT

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

APPLICATIONS

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

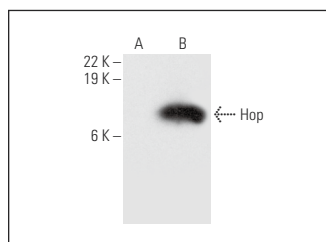
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Hop (E-1): sc-398703 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Hop expression in Hop 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



Hop (E-1): sc-398703. Western blot analysis of Hop expression in non-transfected: sc-117752 (A) and mouse Hop transfected: sc-120878 (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.

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.