



# Hop (h2): 293T Lysate: sc-170056

## 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

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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 (human) mapping to 4q12.

## PRODUCT

Hop (h2): 293T Lysate represents a lysate of human Hop transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

Hop (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Hop antibodies.

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

## 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](http://www.scbt.com) for detailed protocols and support products.