



HEXIM1 (h2): 293T Lysate: sc-171805

BACKGROUND

Hexamethylene bis-acetamide inducible 1 (HEXIM1) and Hexamethylene bis-acetamide inducible 2 (HEXIM2) comprise a family of proteins which inhibit positive transcription elongation factor β (P-TEF β) through association with 7SK. P-TEF β is composed of a catalytic subunit, Cdk9, and either Cyclin T1 or T2 as a regulatory subunit. This complex regulates eukaryotic gene expression at the level of elongation. The C-terminal domains of HEXIM proteins interact directly with each other. Via these domains, HEXIM1 and HEXIM2 form stable homo- and hetero-oligomers, which may aid in the formation of the 7SK small nuclear ribonucleic acid particle. Despite their similar functions, HEXIM1 and HEXIM2 exhibit distinct expression patterns in various established cell lines and human tissues.

REFERENCES

1. Byers, S.A., et al. 2005. HEXIM2, a HEXIM1-related protein, regulates positive transcription elongation factor b through association with 7SK. *J. Biol. Chem.* 280: 16360-16367.
2. Yik, J.H., et al. 2005. Compensatory contributions of HEXIM1 and HEXIM2 in maintaining the balance of active and inactive positive transcription elongation factor b complexes for control of transcription. *J. Biol. Chem.* 280: 16368-16376.
3. Li, Q., et al. 2005. Analysis of the large inactive P-TEFb complex indicates that it contains one 7SK molecule, a dimer of HEXIM1 or HEXIM2, and two P-TEFb molecules containing Cdk9 phosphorylated at Threonine 186. *J. Biol. Chem.* 280: 28819-28826.
4. Dulac, C., et al. 2005. Transcription-dependent association of multiple positive transcription elongation factor units to a HEXIM multimer. *J. Biol. Chem.* 280: 30619-30629.
5. Fraldi, A., et al. 2005. Inhibition of Tat activity by the HEXIM1 protein. *Retrovirology* 2: 42.

CHROMOSOMAL LOCATION

Genetic locus: HEXIM1 (human) mapping to 17q21.31.

PRODUCT

HEXIM1 (h2): 293T Lysate represents a lysate of human HEXIM1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

HEXIM1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive HEXIM1 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.

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.