

HEXIM1 (N-13): sc-48871

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

- Byers, S.A., et al. 2005. HEXIM2, a HEXIM1-related protein, regulates positive transcription elongation factor β through association with 7SK. *J. Biol. Chem.* 280: 16360-16367.
- Yik, J.H., et al. 2005. Compensatory contributions of HEXIM1 and HEXIM2 in maintaining the balance of active and inactive positive transcription elongation factor β complexes for control of transcription. *J. Biol. Chem.* 280: 16368-16376.
- Li, Q., et al. 2005. Analysis of the large inactive P-TEF β complex indicates that it contains one 7SK molecule, a dimer of HEXIM1 or HEXIM2, and two P-TEF β molecules containing Cdk9 phosphorylated at Threonine 186. *J. Biol. Chem.* 280: 28819-28826.
- 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.
- 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; Hexim1 (mouse) mapping to 11 E1.

SOURCE

HEXIM1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HEXIM1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-48871 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-48871 X, 200 μ g/0.1 ml.

RESEARCH USE

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

APPLICATIONS

HEXIM1 (N-13) is recommended for detection of HEXIM1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HEXIM1 (N-13) is also recommended for detection of HEXIM1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HEXIM1 siRNA (h): sc-60787, HEXIM1 siRNA (m): sc-60788, HEXIM1 shRNAPlasmid (h): sc-60787-SH, HEXIM1 shRNA Plasmid (m): sc-60788-SH, HEXIM1 shRNA (h) Lentiviral Particles: sc-60787-V and HEXIM1 shRNA (m) Lentiviral Particles: sc-60788-V.

HEXIM1 (N-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of HEXIM1: 41 kDa.

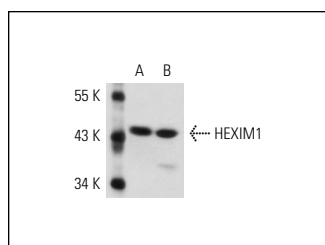
Molecular Weight (observed) of HEXIM1: 60-68 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, SK-N-MC cell lysate: sc-2237 or HeLa whole cell lysate: sc-2200.

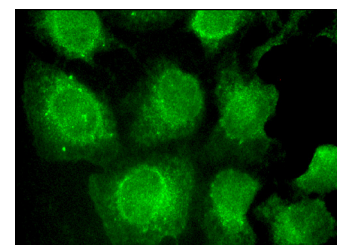
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HEXIM1 (N-13): sc-48871. Western blot analysis of HEXIM1 expression in Sol8 (A) and SK-N-MC (B) whole cell lysates.



HEXIM1 (N-13): sc-48871. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

STORAGE

Store at 4° C, **DO NOT FREEZE** Stable for one year from the date of shipment. Non-hazardous. No MSDS required.