SANTA CRUZ BIOTECHNOLOGY, INC.

HEXIM2 (M-90): sc-98902

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 b (P-TEFb) through association with 7SK. P-TEFb 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.

CHROMOSOMAL LOCATION

Genetic locus: HEXIM2 (human) mapping to 17q21.31; Hexim2 (mouse) mapping to 11 E1.

SOURCE

HEXIM2 (M-90) is a rabbit polyclonal antibody raised against amino acids 1-90 mapping at the N-terminus of HEXIM2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98902 X, 200 µg/0.1 ml.

STORAGE

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

RESEARCH USE

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

APPLICATIONS

HEXIM2 (M-90) is recommended for detection of HEXIM2 of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for HEXIM2 siRNA (h): sc-60789, HEXIM2 siRNA (m): sc-145950, HEXIM2 shRNA Plasmid (h): sc-60789-SH, HEXIM2 shRNA Plasmid (m): sc-145950-SH, HEXIM2 shRNA (h) Lentiviral Particles: sc-60789-V and HEXIM2 shRNA (m) Lentiviral Particles: sc-145950-V.

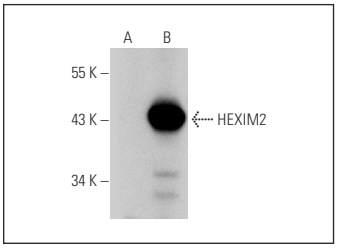
HEXIM2 (M-90) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HEXIM2: 45 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HEXIM2 (M-90): sc-98902. Western blot analysis of HEXIM2 expression in non-transfected: sc-117752 (**A**) and human HEXIM2 transfected: sc-112143 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Galatioto, J., et al. 2010. CLP-1 associates with MyoD and HDAC to restore skeletal muscle cell regeneration. J. Cell Sci. 123: 3789-3795.

MONOS Satisfaction Guaranteed

Try **HEXIM2 (B-9): sc-398355** or **HEXIM2 (A-7): sc-390814**, our highly recommended monoclonal alternatives to HEXIM2 (M-90).