

HEXIM2 (A-7): sc-390814

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.

CHROMOSOMAL LOCATION

Genetic locus: HEXIM2 (human) mapping to 17q21.31.

SOURCE

HEXIM2 (A-7) is a mouse monoclonal antibody raised against amino acids 1-89 mapping at the N-terminus of HEXIM2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain 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-390814 X, 200 μ g/0.1 ml.

HEXIM2 (A-7) is available conjugated to agarose (sc-390814 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390814 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390814 PE), fluorescein (sc-390814 FITC), Alexa Fluor[®] 488 (sc-390814 AF488), Alexa Fluor[®] 546 (sc-390814 AF546), Alexa Fluor[®] 594 (sc-390814 AF594) or Alexa Fluor[®] 647 (sc-390814 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390814 AF680) or Alexa Fluor[®] 790 (sc-390814 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

HEXIM2 (A-7) is recommended for detection of HEXIM2 of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-60789-SH and HEXIM2 shRNA (h) Lentiviral Particles: sc-60789-V.

HEXIM2 (A-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

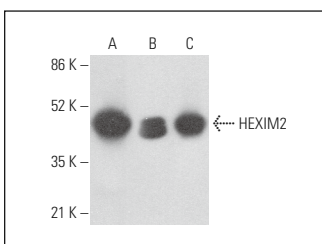
Molecular Weight of HEXIM2: 45 kDa.

Positive Controls: A549 cell lysate: sc-2413, HeLa nuclear extract: sc-2120 or PC-3 nuclear extract: sc-2152.

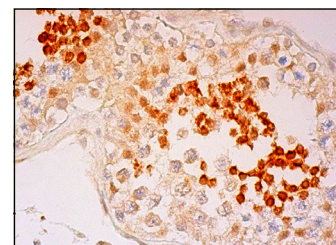
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



HEXIM2 (A-7): sc-390814. Western blot analysis of HEXIM2 expression in A549 whole cell lysate (A) and PC-3 (B) and HeLa (C) nuclear extracts.



HEXIM2 (A-7): sc-390814. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear staining of a subset of cells in seminiferous ducts.

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.