

XAB1 (B-4): sc-365865

BACKGROUND

XAB1 (XPA binding protein 1), also known as MBDIN, NTPBP, ATPBD1A or HUSSY-23, is a 374 amino acid cytoplasmic protein that is involved in protein synthesis events. Expressed ubiquitously with highest expression in testis, XAB1 binds to the RNA polymerase II- (Pol II) associated proteins RPA1-3 and to XPA (a protein involved in DNA repair mechanisms), thereby forming an interface with Pol II. Via this interaction, XAB1 is thought to mediate the involvement of Pol II in both protein complex formation and protein chaperone/scaffolding activities. In addition, XAB1 interacts with components of the integrator and molecular chaperone complexes, further implicating XAB1 in protein assembly. XAB1 contains a cluster of acidic amino acids in its C-terminal region and a series of sequences similar to those found in GTP-binding proteins in its N-terminal region, suggesting that XAB1 has possible GTPase activity.

REFERENCES

1. Nitta, M., et al. 2000. A novel cytoplasmic GTPase XAB1 interacts with DNA repair protein XPA. *Nucleic Acids Res.* 28: 4212-4218.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611479. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Lembo, F., et al. 2003. MBDin, a novel MBD2-interacting protein, relieves MBD2 repression potential and reactivates transcription from methylated promoters. *Mol. Cell. Biol.* 23: 1656-1665.
4. Angrisano, T., et al. 2006. TACC3 mediates the association of MBD2 with histone acetyltransferases and relieves transcriptional repression of methylated promoters. *Nucleic Acids Res.* 34: 364-372.

CHROMOSOMAL LOCATION

Genetic locus: GPN1 (human) mapping to 2p23.3; Gpn1 (mouse) mapping to 5 B1.

SOURCE

XAB1 (B-4) is a mouse monoclonal antibody raised against amino acids 127-374 mapping at the C-terminus of XAB1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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-365865 X, 200 µg/0.1 ml.

XAB1 (B-4) is available conjugated to agarose (sc-365865 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365865 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365865 PE), fluorescein (sc-365865 FITC), Alexa Fluor® 488 (sc-365865 AF488), Alexa Fluor® 546 (sc-365865 AF546), Alexa Fluor® 594 (sc-365865 AF594) or Alexa Fluor® 647 (sc-365865 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365865 AF680) or Alexa Fluor® 790 (sc-365865 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

XAB1 (B-4) is recommended for detection of XAB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 XAB1 siRNA (h): sc-94614, XAB1 siRNA (m): sc-155370, XAB1 shRNA Plasmid (h): sc-94614-SH, XAB1 shRNA Plasmid (m): sc-155370-SH, XAB1 shRNA (h) Lentiviral Particles: sc-94614-V and XAB1 shRNA (m) Lentiviral Particles: sc-155370-V.

XAB1 (B-4) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

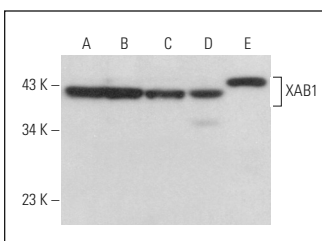
Molecular Weight of XAB1: 42 kDa.

Positive Controls: COLO 205 whole cell lysate: sc-364177, SW480 cell lysate: sc-2219 or Caco-2 cell lysate: sc-2262.

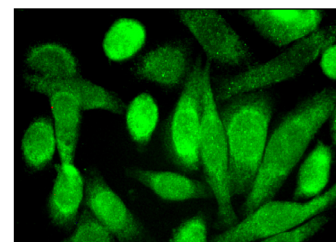
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



XAB1 (B-4): sc-365865. Western blot analysis of XAB1 expression in COLO 205 (A), SW480 (B), Caco-2 (C), HCT-116 (D) and F9 (E) whole cell lysates.



XAB1 (B-4): sc-365865. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic and nuclear localization.

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.