SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP A/B (G-12): sc-390957

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to pre-mRNA processing and transport, and also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II. The hnRNPs are associated with pre-mRNAs in the nucleus and appear to influence pre-mRNA processing and other aspects of mRNA metabolism and transport. hnRNP A/B (heterogeneous nuclear ribonucleoprotein A/B), also known as HNRNPAB, ABBP1 or HNRPAB, is a 332 amino acid nuclear protein that is ubiquitously expressed. hnRNP A/B binds single-stranded RNA and has a high affinity for G-rich and U-rich regions of hnRNA. hnRNP A/B contains two RRM (RNA recognition motif) domains and interacts with APOBEC1 (apolipoprotein B mRNA editing enzyme complex-1).

REFERENCES

1. Khan, F.A., et al. 1991. Cloning and sequence analysis of a human type A/B hnRNP protein. FEBS Lett. 290: 159-161.
2. Lau, P.P., et al. 1997. Cloning of an Apobec-1-binding protein that also interacts with apolipoprotein B mRNA and evidence for its involvement in RNA editing. J. Biol. Chem. 272: 1452-1455.
3. Plomaritoglou, A., et al. 2000. Molecular characterization of a murine, major A/B type hnRNP protein: mBx. Biochim. Biophys. Acta 1490: 54-62.
4. Fomenkov, A., et al. 2003. P63 α mutations lead to aberrant splicing of keratinocyte growth factor receptor in the Hay-Wells syndrome. J. Biol. Chem. 278: 23906-23914.
5. Gao, C., et al. 2004. S-nitrosylation of heterogeneous nuclear ribonucleoprotein A/B regulates osteopontin transcription in endotoxin-stimulated murine macrophages. J. Biol. Chem. 279: 11236-11243.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPAB (human) mapping to 5q35.3; Hnrnpab (mouse) mapping to 11 B1.3.

SOURCE

hnRNP A/B (G-12) is a mouse monoclonal antibody raised against amino acids 1-36 mapping at the N-terminus of hnRNP A/B of mouse 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-390957 X, 200 µg/0.1 ml.

hnRNP A/B (G-12) is available conjugated to agarose (sc-390957 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390957 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390957 PE), fluorescein (sc-390957 FITC), Alexa Fluor® 488 (sc-390957 AF488), Alexa Fluor® 546 (sc-390957 AF546), Alexa Fluor® 594 (sc-390957 AF594) or Alexa Fluor® 647 (sc-390957 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390957 AF680) or Alexa Fluor® 790 (sc-390957 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

hnRNP A/B (G-12) is recommended for detection of hnRNP A/B of mouse and rat 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 hnRNP A/B siRNA (h): sc-75271, hnRNP A/B siRNA (m): sc-75272, hnRNP A/B shRNA Plasmid (h): sc-75271-SH, hnRNP A/B shRNA Plasmid (m): sc-75272-SH, hnRNP A/B shRNA (h) Lentiviral Particles: sc-75271-V and hnRNP A/B shRNA (m) Lentiviral Particles: sc-75272-V.

hnRNP A/B (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

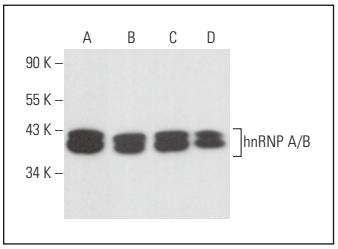
Molecular Weight of hnRNP A/B: 37 kDa.

Positive Controls: AT3B-1 whole cell lysate: sc-364372, PC-12 cell lysate: sc-2250 or MM-142 cell lysate: sc-2246.

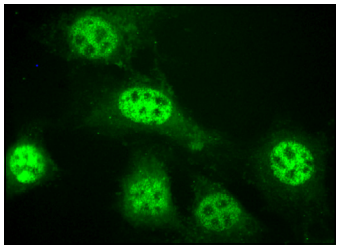
RECOMMENDED SUPPORT REAGENTS

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



hnRNP A/B (G-12): sc-390957. Western blot analysis of hnRNP A/B expression in MM-142 (**A**), AT3B-1 (**B**), PC-12 (**C**) and C6 (**D**) whole cell lysates.



hnRNP A/B (G-12): sc-390957. Immunofluorescence staining of formalin-fixed NIH/3T3 cells showing 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.