SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP F (3H4): sc-32309

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription and pre-mRNA processing as well as mature mRNA transport to the cytoplasm and translation. They also bind heterogeneous nuclear RNA (hnRNA), which are the transcripts produced by RNA polymerase II. There are approximately 20 known hnRNP proteins, and their complexes are the major constituents of the spliceosome. The majority of hnRNP proteins are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm. The A/B subfamily of hnRNPs include A1, A2/B1, A3 and A0, and in *Xenopus,* hnRNP A1, A2 and A3 are ubiquitously expressed throughout development as well as in adult tissues. hnRNP A1 and A2/B1 regulate the processing of pre-mRNA by directly antagonizing the association of various splicing factors and by influencing the splice site selection on pre-mRNA. The hnRNP A0 gene is distinct from the other A/B family members, and it encodes a low-abundance protein, which is implicated in mRNA stability.

REFERENCES

1. Good, P.J., et al. 1993. Three new members of the RNP protein family in *Xenopus*. Nucleic Acids Res. 21: 999-1006.
2. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. Gene 166: 323-337.
3. Siomi, H., et al. 1995. A nuclear localization domain in the hnRNP A1 protein. J. Cell Biol. 129: 551-560.
4. Myer, V.E. and Steitz, J.A. 1995. Isolation and characterization of a novel, low abundance hnRNP protein: A0. RNA 1: 171-182.

CHROMOSOMAL LOCATION

Genetic locus: HNRPF (human) mapping to 10q11.21.

SOURCE

hnRNP F (3H4) is a mouse monoclonal antibody raised against full length recombinant hnRNPF of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

hnRNP F (3H4) is available conjugated to agarose (sc-32309 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-32309 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32309 PE), fluorescein (sc-32309 FITC), Alexa Fluor® 488 (sc-32309 AF488), Alexa Fluor® 546 (sc-32309 AF546), Alexa Fluor® 594 (sc-32309 AF594) or Alexa Fluor® 647 (sc-32309 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32309 AF680) or Alexa Fluor® 790 (sc-32309 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

hnRNP F (3H4) is recommended for detection of hnRNP F of 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).

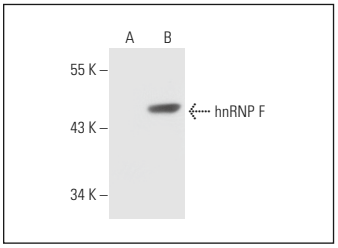
Suitable for use as control antibody for hnRNP F siRNA (h): sc-38272, hnRNP F shRNA Plasmid (h): sc-38272-SH and hnRNP F shRNA (h) Lentiviral Particles: sc-38272-V.

Molecular Weight of hnRNP F: 53 kDa.

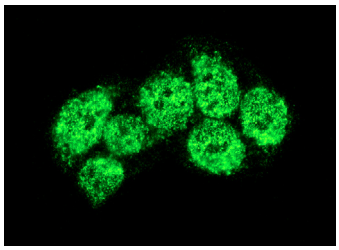
Positive Controls: hnRNP F (h): 293T Lysate: sc-111761, Jurkat nuclear extract: sc-2132 or K-562 nuclear extract: sc-2130.

DATA

SELECT PRODUCT CITATIONS



hnRNP F (3H4): sc-32309. Western blot analysis of hnRNP F expression in non-transfected: sc-117752 (**A**) and human hnRNP F transfected: sc-111761 (**B**) 293T whole cell lysates.



hnRNP F (3H4): sc-32309. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

1. Lee, Y.B., et al. 2013. Hexanucleotide repeats in ALS/FTD form length-dependent RNA foci, sequester RNA binding proteins, and are neurotoxic. Cell Rep. 5: 1178-1186.
2. Serikawa, T., et al. 2018. Comprehensive identification of proteins binding to RNA G-quadruplex motifs in the 5' UTR of tumor-associated mRNAs. Biochimie 144: 169-184.
3. Wang, L., et al. 2018. Novel RNA-affinity proteogenomics dissects tumor heterogeneity for revealing personalized markers in precision prognosis of cancer. Cell Chem. Biol. 25: 619-633.e5.
4. Zaepfel, B.L. and Rothstein, J.D. 2021. Polyadenylated RNA and RNA-binding proteins exhibit unique response to hyperosmotic stress. Front. Cell Dev. Biol. 9: 809859.
5. You, A., et al. 2022. TTC22 promotes m^6A-mediated WTAP expression and colon cancer metastasis in an RPL4 binding-dependent pattern. Oncogene 41: 3925-3938.

STORAGE

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