SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP A3 (Y-25): sc-133665

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. 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.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPA3 (human) mapping to 2q31.2; Hnrnpa3 (mouse) mapping to 2 C3.

SOURCE

hnRNP A3 (Y-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic hnRNP A3 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

hnRNP A3 (Y-25) is recommended for detection of hnRNP A3 of mouse, rat, human and canine 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), 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 hnRNP A3 siRNA (h): sc-38262, hnRNP A3 siRNA (m): sc-38263, hnRNP A3 shRNA Plasmid (h): sc-38262-SH, hnRNP A3 shRNA Plasmid (m): sc-38263-SH, hnRNP A3 shRNA (h) Lentiviral Particles: sc-38262-V and hnRNP A3 shRNA (m) Lentiviral Particles: sc-38263-V.

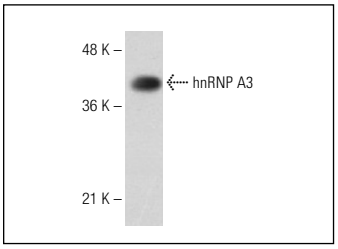
Molecular Weight of hnRNP A3: 40 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

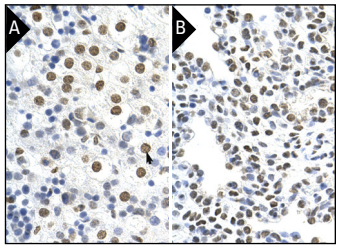
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



hnRNP A3 (Y-25): sc-133665. Western blot analysis of hnRNP A3 expression in Jurkat whole cell lysate.



hnRNP A3 (Y-25): sc-133665. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human liver tissue (**A**) and human lung tissue (**B**) showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Shi, H., et al. 2011. Proteomic analysis of advanced colorectal cancer by laser capture microdissection and two-dimensional difference gel electrophoresis. J. Proteomics 75: 339-351.
2. Lane, K.R., et al. 2013. Cell cycle-regulated protein abundance changes in synchronously proliferating HeLa cells include regulation of pre-mRNA splicing proteins. PLoS ONE 8: e58456.
3. Pacurari, M., et al. 2013. The microRNA-200 family targets multiple non-small cell lung cancer prognostic markers in H1299 cells and BEAS-2B cells. Int. J. Oncol. 43: 548-560.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.