SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP C1/C2 (B-8): sc-515938

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. hnRNP complexes are the major constituents of the spliceosome and in particular, the hnRNP A1 protein is one of the major pre-mRNA/mRNA binding proteins and also one of the most abundant proteins in the nucleus. 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 majority of hnRNP proteins components are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm. Most hnRNP proteins, including hnRNP C1 and C2, contain one or more RNA binding domains and are implicated in the processing of pre-mRNA. hnRNPs F and H are largely related factors that preferentially associate with poly(rG) regions on RNA. Isoforms of these proteins are often generated by alternative processing of the pre-mRNA and by posttranslational modifications such as phosphorylation on serines and threonines and methylation of arginines.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPC (human) mapping to 14q11.2; Hnrnpc (mouse) mapping to 14 C2.

SOURCE

hnRNP C1/C2 (B-8) is a mouse monoclonal antibody raised against amino acids 86-190 of hnRNP C1/C2 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.

RESEARCH USE

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

APPLICATIONS

hnRNP C1/C2 (B-8) is recommended for detection of hnRNP C1 and hnRNP C2 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), 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 C1/C2 siRNA (h): sc-35577, hnRNP C1/C2 siRNA (m): sc-35578, hnRNP C1/C2 shRNA Plasmid (h): sc-35577-SH, hnRNP C1/C2 shRNA Plasmid (m): sc-35578-SH, hnRNP C1/C2 shRNA (h) Lentiviral Particles: sc-35577-V and hnRNP C1/C2 shRNA (m) Lentiviral Particles: sc-35578-V.

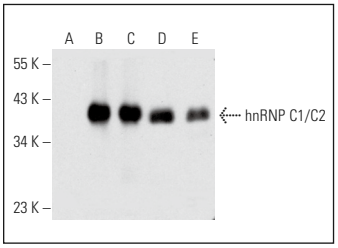
Molecular Weight of hnRNP C1/C2: 40 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, HeLa nuclear extract: sc-2120 or hnRNP C1/C2 (h): 293T Lysate: sc-111776.

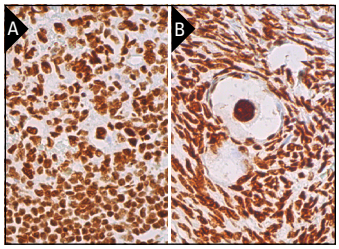
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



hnRNP C1/C2 (B-8): sc-515938. Western blot analysis of hnRNP C1/C2 expression in non-transfected 293T: sc-117752 (**A**), human hnRNP C1/C2 transfected 293T: sc-111776 (**B**) and sc-112112 (**C**) whole cell lysates and Jurkat (**D**) and HeLa (**E**) nuclear extracts.



hnRNP C1/C2 (B-8): sc-515938. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in germinal center and cells in non-germinal center (**A**), and of human ovary tissue showing nuclear staining of follicle cells, ovarian stroma cells and oocyte (**B**). Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

SELECT PRODUCT CITATIONS

1. Che, J., et al. 2020. Hypoxia promoted renal cell carcinoma cell migration through regulating lncRNA-ENST00000574654.1. Am. J. Transl. Res. 12: 3884-3894.

STORAGE

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

PROTOCOLS

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