## SANTA CRUZ BIOTECHNOLOGY, INC.

# hnRNP C1/C2 (H-105): sc-15386



#### 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 premRNA. 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: HNRPC (human) mapping to 14q11.2; Hnrpc (mouse) mapping to 14 C2.

#### SOURCE

hnRNP C1/C2 (H-105) is a rabbit polyclonal antibody raised against amino acids 86-190 of hnRNP C1/C2 of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

hnRNP C1/C2 (H-105) is recommended for detection of hnRNP C1 and hnRNP C2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

hnRNP C1/C2 (H-105) is also recommended for detection of hnRNP C1 and hnRNP C2 in additional species, including equine, canine, bovine and porcine.

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: hnRNP C1/C2 (h): 293T Lysate: sc-111776, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

## STORAGE

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

## DATA





hnRNP C1/C2 (H-105): sc-15386. Western blot analysis of hnRNP C1/C2 expression in non-transfected 293T: sc-117752 (**A**) and human hnRNP C1/C2 transfected 293T: sc-111776 (**B**) whole cell lysates and HeLa nuclear extract (**C**).

hnRNP C1/C2 (H-105): sc-15386. Immunofluorescence staining of methanol-fixed HeLa cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing nuclear localization (**B**).

#### SELECT PRODUCT CITATIONS

- Esnault, S., et al. 2003. Hyaluronic acid or TNFα plus fibronectin triggers granulocyte macrophage-colony-stimulating factor mRNA stabilization in eosinophils yet engages differential intracellular pathways and mRNA binding proteins. J. Immunol. 171: 6780-6787.
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- Buschbeck M., et al. 2009. The histone variant macroH2A is an epigenetic regulator of key developmental genes. Nat. Struct. Mol. Biol. 16: 1074-1079.
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- Chang, W.H., et al. 2011. Amiloride modulates alternative splicing in leukemic cells and resensitizes Bcr-AbIT315I mutant cells to imatinib. Cancer Res. 71: 383-392.

#### **RESEARCH USE**

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