

hnRNP A1 (C-2): sc-166511

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 protein components 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.

CHROMOSOMAL LOCATION

Genetic locus: HNRNPA1 (human) mapping to 12q13.13; Hnrnpa1 (mouse) mapping to 15 F3.

SOURCE

hnRNP A1 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-35 at the N-terminus of hnRNP A1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166511 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

hnRNP A1 (C-2) is recommended for detection of hnRNP A1 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).

hnRNP A1 (C-2) is also recommended for detection of hnRNP A1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for hnRNP A1 siRNA (h2): sc-270345, hnRNP A1 siRNA (m): sc-35576, hnRNP A1 shRNA Plasmid (h2): sc-270345-SH, hnRNP A1 shRNA Plasmid (m): sc-35576-SH, hnRNP A1 shRNA (h2) Lentiviral Particles: sc-270345-V and hnRNP A1 shRNA (m) Lentiviral Particles: sc-35576-V.

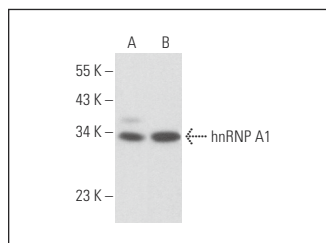
Molecular Weight of hnRNP A1 isoforms: 29/34/39 kDa.

Positive Controls: KNRK nuclear extract: sc-2141.

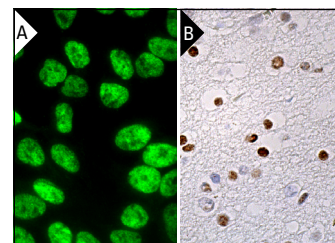
RECOMMENDED SUPPORT REAGENTS

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 A1 (C-2): sc-166511. Western blot analysis of hnRNP A1 expression in KNRK (A) and K-562 (B) nuclear extracts.



hnRNP A1 (C-2): sc-166511. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human brain tissue showing nuclear staining of glial cells (B).

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 for detailed protocols and support products.



See **hnRNP A1 (4B10): sc-32301** for hnRNP A1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.