SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP Q (B-8): sc-271003

BACKGROUND

Pre-mRNA splicing is a critical step in the post-transcriptional regulation of gene expression. Heterogeneous nuclear ribonucleoprotein Q (hnRNP Q) is involved in RNA processing and is necessary for efficient pre-mRNA splicing. hnRNP is widely expressed and developmentally regulated. hnRNP Q interacts with survival motor neuron protein (SMN). Loss of function of SMN results in spinal muscular atrophy, a common neurodegenerative disease. The most common deletion in SMN genes disrupts the interaction between SMN and hnRNP Q. hnRNP Q is upregulated after midnight, and this upregulation correlates with an abrupt decline in AANAT, the key enzyme in melatonin synthesis. Rhythmic AANAT mRNA degradation mediated in part by hnRNP Q implicates this enzyme in the regulation of circadian oscillation.

CHROMOSOMAL LOCATION

Genetic locus: SYNCRIP (human) mapping to 6q14.3; Syncrip (mouse) mapping to 9 E3.1.

SOURCE

hnRNP Q (B-8) is a mouse monoclonal antibody raised against amino acids 373-432 mapping within an internal region of hnRNP Q 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-271003 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

hnRNP Q (B-8) is recommended for detection of hnRNP Q 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for hnRNP Q siRNA (h): sc-72096, hnRNP Q siRNA (m): sc-72097, hnRNP Q shRNA Plasmid (h): sc-72096-SH, hnRNP Q shRNA Plasmid (m): sc-72097-SH, hnRNP Q shRNA (h) Lentiviral Particles: sc-72096-V and hnRNP Q shRNA (m) Lentiviral Particles: sc-72097-V.

hnRNP Q (B-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of hnRNP Q: 70 kDa.

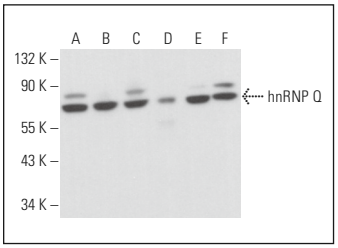
Molecular Weight of hnRNP R: 82 kDa.

Positive Controls: A549 cell lysate: sc-2413, hnRNP Q (h): 293T Lysate: sc-115273 or HeLa whole cell lysate: sc-2200.

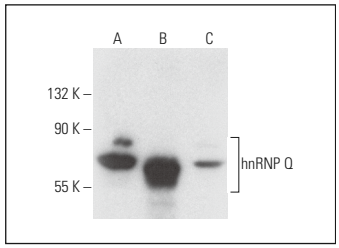
RECOMMENDED SUPPORT REAGENTS

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.

DATA



hnRNP Q (B-8): sc-271003. Western blot analysis of hnRNP Q expression in Hep G2 (**A**), HeLa (**B**), T-47D (**C**), HT-29 (**D**), Jurkat (**E**) and A549 (**F**) whole cell lysates.



hnRNP Q (B-8): sc-271003. Western blot analysis of hnRNP Q expression in non-transfected 293T: sc-117752 (**A**), human hnRNP Q transfected 293T: sc-115273 (**B**) and A549 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tratnjek, L., et al. 2017. Synaptotagmin 7 and SYNCRIP proteins are ubiquitously expressed in the rat brain and co-localize in Purkinje neurons. J. Chem. Neuroanat. 79: 12-21.

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.