SANTA CRUZ BIOTECHNOLOGY, INC.

hnRNP Q (I8E4): sc-56703

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (I8E4) is a mouse monoclonal antibody raised against recombinant 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.

hnRNP Q (I8E4) is available conjugated to agarose (sc-56703 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-56703 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-56703 PE), fluorescein (sc-56703 FITC), Alexa Fluor® 488 (sc-56703 AF488), Alexa Fluor® 546 (sc-56703 AF546), Alexa Fluor® 594 (sc-56703 AF594) or Alexa Fluor® 647 (sc-56703 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-56703 AF680) or Alexa Fluor® 790 (sc-56703 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

hnRNP Q (I8E4) is recommended for detection of hnRNP Q of mouse, rat, human and *Xenopus laevis* 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

Molecular Weight of hnRNP Q: 70 kDa.

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

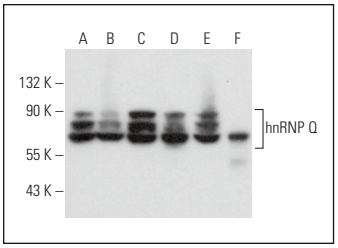
STORAGE

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

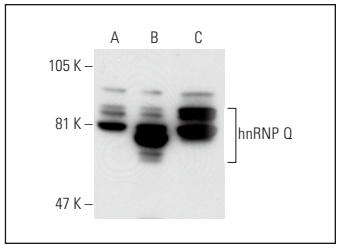
RESEARCH USE

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

DATA



hnRNP Q (I8E4): sc-56703. Western blot analysis of hnRNP Q expression in A549 (**A**), WI-38 (**B**), Hep G2 (**C**), HeLa (**D**), T-47D (**E**) and HT-29 (**F**) whole cell lysates.



hnRNP Q (I8E4): sc-56703. 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. Galán, C., et al. 2009. Host cell proteins interacting with the 3' end of TGEV coronavirus genome influence virus replication. Virology 391: 304-314.
2. Watanabe, N., et al. 2013. Heterogeneous nuclear ribonucleoprotein Q is a novel substrate of SH2 domain-containing phosphatase-2. J. Biochem. 154: 475-480.
3. Comegna, M., et al. 2014. Identification of miR-494 direct targets involved in senescence of human diploid fibroblasts. FASEB J. 28: 3720-3373.
4. Marquez-Jurado, S., et al. 2015. Identification of a γ interferon-activated inhibitor of translation-like RNA motif at the 3' end of the transmissible gastroenteritis coronavirus genome modulating innate immune response. MBio 6: e00105.
5. Wang, C., et al. 2017. The flightless I protein interacts with RNA-binding proteins and is involved in the genome-wide mRNA post-transcriptional regulation in lung carcinoma cells. Int. J. Oncol. 51: 347-361.
6. Val, S., et al. 2018. Nontypeable *Haemophilus influenzae* lysates increase heterogeneous nuclear ribonucleoprotein secretion and exosome release in human middle-ear epithelial cells. FASEB J. 32: 1855-1867.
7. Suzuki, H., et al. 2019. C9-ALS/FTD-linked proline-arginine dipeptide repeat protein associates with paraspeckle components and increases paraspeckle formation. Cell Death Dis. 10: 746.
8. Martins-Marques, T., et al. 2022. Cx43-mediated sorting of miRNAs into extracellular vesicles. EMBO Rep. 23: e54312.
9. Ishtayeh, H., et al. 2023. Oculopharyngeal muscular dystrophy mutations link the RNA-binding protein HNRNPQ to autophagosome biogenesis. Aging Cell 22: e13949.

PROTOCOLS

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