# SANTA CRUZ BIOTECHNOLOGY, INC.

# hnRNP E2 (23-G): sc-101136



## BACKGROUND

Heterogeneous nuclear ribonucleoproteins (hnRNPs) constitute a set of polypeptides that contribute to mRNA transcription, 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 proteins components are localized to the nucleus; however some shuttle between the nucleus and the cytoplasm, such as hnRNP E1 and E2. hnRNP E1 may function in the cytoplasm as a translational regulatory protein, while hnRNP E2 stabilizes mRNA to enhance polioviral mRNA translation. hnRNP M is involved in pre-mRNA splicing and in stress-induced transient splicing arrest.

## REFERENCES

- 1. Badolato, J., et al. 1995. Identification and characterisation of a novel human RNA-binding protein. Gene 166: 323-327.
- Siomi, H., et al. 1995. A nuclear localization domain in the hnRNP A1 protein. J. Cell Biol. 129: 551-560.
- Gattoni, R., et al. 1996. The human hnRNP-M proteins: structure and relation with early heat shock-induced splicing arrest and chromosome mapping. Nucleic Acids Res. 24: 2535-2542.

#### **CHROMOSOMAL LOCATION**

Genetic locus: PCBP2 (human) mapping to 12q13.13; Pcbp2 (mouse) mapping to 15 F3.

## SOURCE

hnRNP E2 (23-G) is a mouse monoclonal antibody raised against recombinant hnRNP E2 of human origin.

## PRODUCT

Each vial contains 100  $\mu g\, lgG_{2a}$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## **APPLICATIONS**

hnRNP E2 (23-G) is recommended for detection of hnRNP E2 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), 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 E2 siRNA (h): sc-38270, hnRNP E2 siRNA (m): sc-38271, hnRNP E2 shRNA Plasmid (h): sc-38270-SH, hnRNP E2 shRNA Plasmid (m): sc-38271-SH, hnRNP E2 shRNA (h) Lentiviral Particles: sc-38270-V and hnRNP E2 shRNA (m) Lentiviral Particles: sc-38271-V.

Molecular Weight of hnRNP E2: 40 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## STORAGE

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

## DATA



analysis of hnRNP E2 (23-G); sc-101136. Immunofi

hnRNP E2 (23-G): sc-101136. Western blot analysis of hnRNP E2 expression in K-562 whole cell lysate.



#### **SELECT PRODUCT CITATIONS**

- Dinh, P.X., et al. 2013. Heterogeneous nuclear ribonucleoprotein K supports vesicular stomatitis virus replication by regulating cell survival and cellular gene expression. J. Virol. 87: 10059-10069.
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- Ren, C., et al. 2016. RNA-binding protein PCBP2 regulates p73 expression and p73-dependent antioxidant defense. J. Biol. Chem. 291: 9629-9637.
- Davidson, Y.S., et al. 2017. Heterogeneous ribonuclear protein E2 (hnRNP E2) is associated with TDP-43-immunoreactive neurites in semantic dementia but not with other TDP-43 pathological subtypes of frontotemporal lobar degeneration. Acta Neuropathol. Commun. 5: 54.
- 5. Martínez-Pizarro, A., et al. 2018. Intronic PAH gene mutations cause a splicing defect by a novel mechanism involving U1snRNP binding down-stream of the 5' splice site. PLoS Genet. 14: e1007360.
- Georgiadou, D., et al. 2021. Knockdown of splicing complex protein PCBP2 reduces extravillous trophoblast differentiation through transcript switching. Front. Cell Dev. Biol. 9: 671806.
- 7. Gu, H., et al. 2022. PCBP2 maintains antiviral signaling homeostasis by regulating cGAS enzymatic activity via antagonizing its condensation. Nat. Commun. 13: 1564.
- Lin, J.J., et al. 2023. Hsa\_circ\_0001402 alleviates vascular neointimal hyperplasia through a miR-183-5p-dependent regulation of vascular smooth muscle cell proliferation, migration, and autophagy. J. Adv. Res. 60: 93-110.
- Liu, C., et al. 2024. Function of miR-21-5p derived from ADSCs-exos on the neuroinflammation after cerebral ischemia. J. Stroke Cerebrovasc. Dis. 33: 107779.

## **RESEARCH USE**

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