SANTA CRUZ BIOTECHNOLOGY, INC.

PJA2 (H-4): sc-390137

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The Power to Question

BACKGROUND

PJA2 (praja ring finger 2), also known as E3 ubiquitin-protein ligase praja-2, RNF131 (ring finger protein 131) or Neurodap1, is a 708 amino acid protein that contains one ring-type zinc finger and exists as 2 alternatively spliced isoforms. Significantly conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, PJA2 shares 52% identity with PJA1, which is involved in protein ubiquitination in brain and may play a role in X-linked mental retardation. Encoded by a gene that maps to human chromosome 5q21.3, PJA2 localizes to both endoplasmic reticulum and Golgi apparatus membranes. Participating in E2-dependent, E3 ubiquitin-protein ligase activity, PJA2 binds to a variety of E2s and interacts with ubiquitin-conjugating enzymes, such as UBE2D2, *in vitro*.

REFERENCES

1. Mishra, L., et al. 1997. Praja1, a novel gene encoding a RING-H2 motif in mouse development. Oncogene 15: 2361-2368.
2. Yu, P., et al. 2002. PJA1, encoding a RING-H2 finger ubiquitin ligase, is a novel human X chromosome gene abundantly expressed in brain. Genomics 79: 869-874.
3. Sasaki, A., et al. 2002. A RING finger protein Praja1 regulates Dlx5-dependent transcription through its ubiquitin ligase activity for the Dlx/Msx-interacting MAGE/Necdin family protein, Dlxin-1. J. Biol. Chem. 277: 22541-22546.
4. Kleivi, K., et al. 2005. TP53 mutations are associated with a particular pattern of genomic imbalances in breast carcinomas. J. Pathol. 207: 14-19.

CHROMOSOMAL LOCATION

Genetic locus: PJA2 (human) mapping to 5q21.3; Pja2 (mouse) mapping to 17 E1.1.

SOURCE

PJA2 (H-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 47-83 near the N-terminus of PJA2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PJA2 (H-4) is available conjugated to agarose (sc-390137 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390137 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390137 PE), fluorescein (sc-390137 FITC), Alexa Fluor® 488 (sc-390137 AF488), Alexa Fluor® 546 (sc-390137 AF546), Alexa Fluor® 594 (sc-390137 AF594) or Alexa Fluor® 647 (sc-390137 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390137 AF680) or Alexa Fluor® 790 (sc-390137 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390137 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PJA2 (H-4) is recommended for detection of PJA2 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).

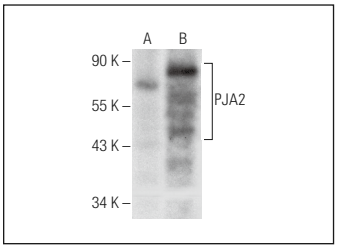
PJA2 (H-4) is also recommended for detection of PJA2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PJA2 siRNA (h): sc-91836, PJA2 siRNA (m): sc-152284, PJA2 shRNA Plasmid (h): sc-91836-SH, PJA2 shRNA Plasmid (m): sc-152284-SH, PJA2 shRNA (h) Lentiviral Particles: sc-91836-V and PJA2 shRNA (m) Lentiviral Particles: sc-152284-V.

Molecular Weight of PJA2 isoforms: 78/76 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, IMR-32 cell lysate: sc-2409 or mouse brain extract: sc-2253.

DATA



PJA2 (H-4): sc-390137. Western blot analysis of PJA2 expression in Jurkat (**A**) and IMR-32 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ha, C.M., et al 2022. Transcriptional regulatory role of NELL2 in preproenkephalin gene expression. Mol. Cells 45: 537-549.

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.