

PJA2 (A-4): sc-390165

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

- Mishra, L., et al. 1997. Praja1, a novel gene encoding a RING-H2 motif in mouse development. *Oncogene* 15: 2361-2368.
- 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.
- 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.
- Kleivi, K., et al. 2005. TP53 mutations are associated with a particular pattern of genomic imbalances in breast carcinomas. *J. Pathol.* 207: 14-19.
- Haddad, M.R., et al. 2009. Characterization of a *de novo* balanced translocation in a patient with moderate mental retardation and dysmorphic features. *Eur. J. Med. Genet.* 52: 211-217.
- Lee, K.H., et al. 2009. Gene expression profiling of rat cerebral cortex development using cDNA microarrays. *Neurochem. Res.* 34: 1030-1038.

CHROMOSOMAL LOCATION

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

SOURCE

PJA2 (A-4) is a mouse monoclonal antibody raised against a peptide mapping near the N-terminus of PJA2 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-390165 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

PJA2 (A-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 (A-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.

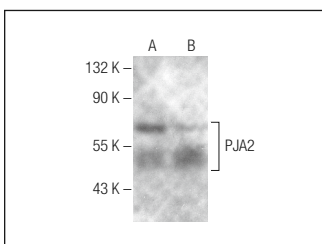
Molecular Weight of PJA2: isoforms: 78/76 kDa.

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

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



PJA2 (A-4): sc-390165. Western blot analysis of PJA2 expression in Jurkat (A) and IMR-32 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Gong, M., et al. 2020. Regulatory function of PJA2 mediated by the P2rx3/P2rx7 axis in mouse hippocampal neuronal cells. *Am. J. Physiol., Cell Physiol.* 318: C1123-C1135.

RESEARCH USE

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