SANTA CRUZ BIOTECHNOLOGY, INC.

PJA1 (E-14): sc-241623

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The Power to Question

BACKGROUND

Ubiquitinization is an important cellular degradation process requiring sequential reactions that are mediated by three enzymes: E1, E2 and E3. PJA1, also known as Praja1 and RING finger protein 70, is a 643 amino acid E2-dependent E3-ubiquitin ligase that is abundantly expressed in regions of the brain including cerebellum, medulla, cerebral cortex, putamen, occipital pole, temporal lobe and frontal lobe. Through interaction and activation with the E2-ubiquitin ligase UBC4, PJA1 mediates substrate-specific ubiquitization via its RING finger domain. The gene encoding PJA1 may be a candidate gene for X-linked mental retardations (MRXs), such as craniofrontonasal syndrome, due to its location on the X chromosome that is frequently found mutated in MRX patients. Overexpression of PJA1 in gastrointestinal cancers suggests that it may be responsible for the degradation of spectrin β II, a protein that exhibits anti-oncogenic activity. There are two named isoforms of PJA1 that exist as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Pja1 (mouse) mapping to X C3.

SOURCE

PJA1 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PJA1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-241623 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PJA1 (E-14) is recommended for detection of PJA1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with PJA2.

Suitable for use as control antibody for PJA1 siRNA (m): sc-152283, PJA1 shRNA Plasmid (m): sc-152283-SH and PJA1 shRNA (m) Lentiviral Particles: sc-152283-V.

Molecular Weight of PJA1: 71 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.