10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PJA1 Antibody

Catalog # ASC11882

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8NG27
Other Accession	NP_660095, 41281725
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	71002
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PJA1 antibody can be used for detection of PJA1 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	64219
Other Names	E3 ubiquitin-protein ligase Praja-1, Praja1, 6.3.2.-, RING finger protein 70, PJA1, RNF70
Target/Specificity	PJA1; PJA1 antibody is human, mouse and rat reactive. At least two isoforms of PJA1 are known to exist; this antibody will detect both isoforms.
Reconstitution & Storage	PJA1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	PJA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PJA1
Synonyms	RNF70
Function	Has E2-dependent E3 ubiquitin-protein ligase activity. Ubiquitinates MAGED1 antigen leading to its subsequent degradation by proteasome (By similarity). May be involved in protein sorting.
Tissue Location	Expressed in various regions of the brain including the cerebellum, cerebral cortex, medulla, occipital pole, frontal lobe, temporal lobe and putamen. Highest levels in the cerebral cortex

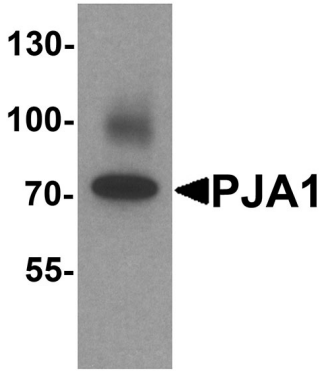
Background

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 the brain (1,2). Through interaction and activation with the E2-ubiquitin ligase UBC4, PJA1 mediates substrate-specific ubiquitination via its RING finger domain and facilitates ubiquitination (3). Overexpression of PJA1 in gastrointestinal cancers suggests that it may be responsible for the degradation of some anti-oncogenic proteins (4,5).

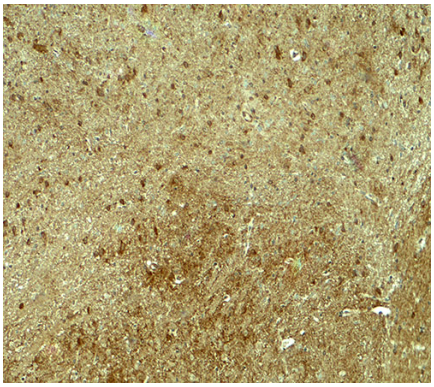
References

Yu P, Chen Y, Tagle DA, et al. PJA1, encoding a RING-H2 finger ubiquitin ligase, is a novel human X chromosome gene abundantly expressed in brain. Genomics 2002; 79:869-74.
Zoabi M, Sadeh R, de Bie P, et al. PRAJA1 is a ubiquitin ligase for the polycomb repressive complex 2 proteins. Biochem. Biophys. Res. Commun. 2011; 408:393-8.
Doyle JM, Gao J, Wang J, et al. MAGE-RING protein complexes comprise a family of E3 ubiquitin ligases. Mol. Cell 2010; 39:963-74.
Saha T, Vardhini D, Tang Y, et al. RING finger-dependent ubiquitination by PRAJA is dependent on TGF-beta and potentially defines the functional status of the tumor suppressor ELF. Oncogene 2006; 25:693-705.

Images

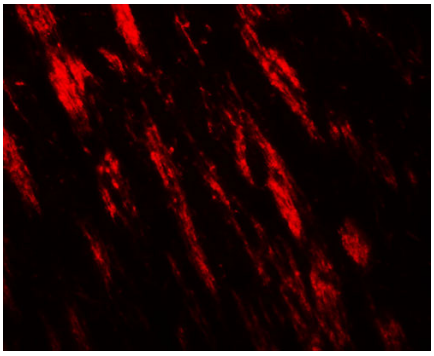


Western blot analysis of PJA1 in human brain tissue lysate with PJA1 antibody at 1 µg/ml.



Immunohistochemistry of PJA1 in mouse brain tissue with PJA1 antibody at 5 µg/ml.

Immunofluorescence of PJA1 in mouse brain tissue with PJA1 antibody at 20 µg/ml.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.