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

PNAS4 Antibody

Catalog # ASC10922

Product Information

Application	WB, E
Primary Accession	Q9BSY9
Other Accession	NP_057160, 38708309
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21444
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	PNAS4 antibody can be used for detection of PNAS4 by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	51029
Other Names	Desumoylating isopeptidase 2, DeSI-2, 3.4.-.-, PPPDE peptidase domain-containing protein 1, Protein FAM152A, DESI2, C1orf121, FAM152A, PPPDE1
Target/Specificity	PPPDE1;
Reconstitution & Storage	PNAS4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	PNAS4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DESI2
Function	Has deubiquitinating activity towards 'Lys-48'- and 'Lys-63'- linked polyubiquitin chains. Deubiquitinates 'Lys-48'-linked polyubiquitination of RPS7 leading to its stabilization (PubMed:28483520). Exhibits palmitoyl protein thioesterase (S- depalmitoylation) activity towards synthetic substrates 4- methylumbelliferyl-6-S-palmitoyl-beta-D-glucopyranoside and S-depalmitoylation probe 5 (DPP-5) (PubMed:35427157).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q9D291}.

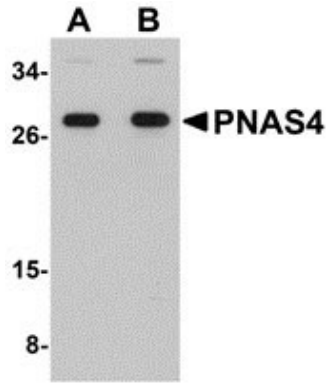
Background

PNAS4 Antibody: PNAS4 is a highly conserved protein that shares high homology from plants to animals. It was initially identified as a putative apoptosis-related protein in the human acute promyelocytic leukemia cell line NB4. PNAS4 is activated during the early response to DNA damage and can inhibit proliferation via apoptosis when overexpressed in some tumor cells such as U2OS, SKOV3, and A549. PNAS4 inhibits tumor cell proliferation through the following mechanisms: (i) overexpression of PNAS4 causes S phase arrest by regulating the expression of cell cycle-related proteins and (ii) PNAS4 induces apoptosis through the mitochondrial apoptosis pathway. Recent evidence has shown that PNAS4 may be involved in the genesis of some cancers and could be a potential candidate for lung cancer therapy alone or in combination with gemcitabine. At least two isoforms of PNAS4 are known to exist.

References

Yao S, Xie L, Qian M, et al. Pnas4 is a novel regulator for convergence and extension during vertebrate gastrulation. FEBS Lett.2008; 582:2325-32.
Yan F, Gou L, Yang J, et al. A novel pro-apoptosis gene PNAS4 that induces apoptosis in A549 human lung adenocarcinoma cells and inhibits tumor growth in mice. Biochimie2009; 91:502-7.
Yuan Z, Liu H, Yan F, et al. Improved therapeutic efficacy against murine carcinoma by combining honokiol with gene therapy of PNAS-4, a novel pro-apoptotic gene. Cancer Sci.2009; 100:1757-66.
Yuan Z, Yan F, Wang YS, et al. PNAS-4, a novel pro-apoptotic gene, can potentiate antineoplastic effects of cisplatin. Cancer Chemother. Pharmacol.2009; .

Images



Western blot analysis of PNAS4 in EL4 cell lysate with PNAS4 antibody at (A) 1 and (B) 2 µg/mL.