

Rabbit anti-Human PAICS Polyclonal Antibody | anti-PAICS antibody

Anti-PAICS Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127420	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

PAICS; Polyclonal Antibody; Anti-PAICS Antibody Picoband; Serine/threonine-protein kinase AtPK1/AtPK6; 70 kDa ribosomal protein S6 kinase 1 antibody; KS6B1_HUMAN antibody; p70 alpha antibody; P70 beta 1 antibody; p70 ribosomal S6 kinase alpha antibody; p70 ribosomal S6 kinase beta 1 antibody; p70 S6 kinase alpha antibody; P70 S6 Kinase antibody; p70 S6 kinase alpha 1 antibody; p70 S6 kinase alpha 2 antibody; p70 S6K antibody; p70 S6K-alpha antibody; p70 S6KA antibody; p70(S6K) alpha antibody; p70(S6K)-alpha antibody; p70-alpha antibody; p70-S6K 1 antibody; p70-S6K antibody; P70S6K antibody; P70S6K1 antibody; p70S6Kb antibody; PS6K antibody; Ribosomal protein S6 kinase 70kDa polypeptide 1 antibody; Ribosomal protein S6 kinase beta 1 antibody; Ribosomal protein S6 kinase beta-1 antibody; Ribosomal protein S6 kinase I antibody; RPS6KB1 antibody; S6K antibody; S6K-beta-1 antibody; S6K1 antibody; Serine/threonine kinase 14 alpha antibody; Serine/threonine-protein kinase 14A antibody; STK14A antibody; anti-PAICS antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	Expressed in all tissues.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Applicable Applications for anti-PAICS antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived human PAICS recombinant protein (Position: Q69-L425). Human PAICS shares 95.2% and 96.1% amino acid (aa) sequence identity with mouse and rat PAICS, respectively.
Subcellular Localization	Cytoplasm, Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross reactivity with other proteins.
Protein Function	Downstream effector of TOR signaling pathway involved in osmotic stress response. Could be involved in the control of plant growth and development. Phosphorylates the ribosomal proteins P14, P16 and S6. Functions as a repressor of cell proliferation and required for maintenance of chromosome stability and ploidy levels through the RBR1-E2F pathway.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)
Figure 2. Flow Cytometry analysis of PC-3 cells using anti-PAICS antibody (AAA127420). Overlay histogram showing PC-3 cells stained with AAA127420 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PAICS Antibody (AAA127420, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)
Figure 1. Western blot analysis of PAICS using anti-PAICS antibody (AAA127420). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human Raji whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PAICS antigen affinity purified polyclonal antibody (#AAA127420) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for PAICS at approximately 47 kDa. The expected band size for PAICS is at 47 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PAICS antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-PAICS antibody	Primary Antibodies; Signal Transduction; Signaling Pathway; Small G Proteins
References	1. Barton, J. W., Hart, I. M., Patterson, D. Mapping of a locus correcting lack of phosphoribosylaminoimidazole carboxylase activity in Chinese hamster ovary cell Ade(-)D mutants to human chromosome 4. Genomics 9: 314-321, 1991. 2. Brayton, K. A., Chen, Z., Zhou, G., Nagy, P. L., Gavalas, A., Trent, J. M., Deaven, L. L., Dixon, J. E., Zalkin, H. Two genes for de novo purine nucleotide synthesis on human chromosome 4 are closely linked and divergently transcribed. J. Biol. Chem. 269: 5313-5321, 1994. 3. Pelet, A., Skopova, V., Steuerwald, U., Baresova, V., Zarhrate, M., Plaza, J.-M., Hnizda, A., Krijt, M., Souckova, O., Wibrand, F., Andorsdottir, G., Joensen, F., Sedlak, D., Bleyer, A. J., Knoch, S., Lyonnet, S., Zikanova, M. PAICS deficiency, a new defect of de novo purine synthesis resulting in multiple congenital anomalies and fatal outcome. Hum. Molec. Genet. 28: 3805-3814, 2019.

NCBI AND UNIPROT INFORMATION

NCBI GI #	119220557
NCBI GeneID	10606
NCBI Accession #	NP_001072992
NCBI GenBank Nucleotide #	NM_001079524.1
UniProt Accession #	P22234; Q68CQ5; E9PDH9
Molecular Weight	49.5 kDa (448aa) confirmed by MALDI-TOF
NCBI Official Full Name	multifunctional protein ADE2 isoform 2
NCBI Official Synonym Full Names	phosphoribosylaminoimidazole carboxylase and phosphoribosylaminoimidazolesuccinocarboxamide synthase
NCBI Official Symbol	PAICS
NCBI Official Synonym Symbols	ADE2; AIRC; PAIS; ADE2H1
NCBI Protein Information	multifunctional protein ADE2
UniProt Protein Name	Multifunctional protein ADE2
UniProt Gene Name	PAICS

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/paics-antibody-flow-cytometry-western-blot-elisa/127420>