

Rabbit PDE12 Polyclonal Antibody | anti-PDE12 antibody

Anti-PDE12 Antibody Picoband

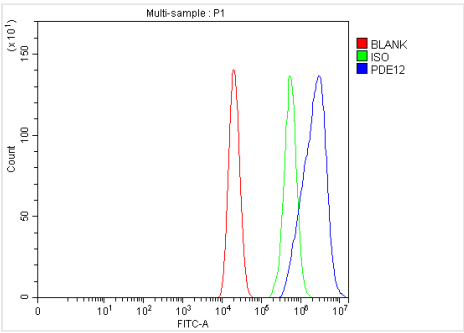
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127670	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

PDE12; Polyclonal Antibody; Anti-PDE12 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-PDE12 antibody

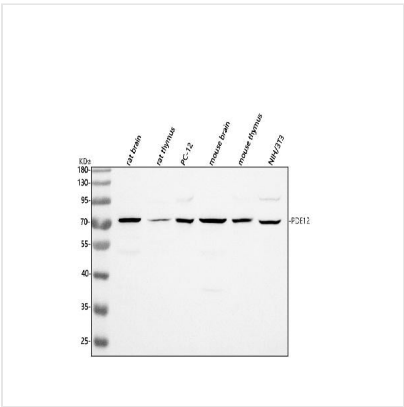
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
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-PDE12 antibody	ELISA, FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E coli-derived human PDE12 recombinant protein (Position: E36-K607). Human PDE12 shares 89.9% and 91.3% amino acid (aa) sequence identity with mouse and rat PDE12, 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.



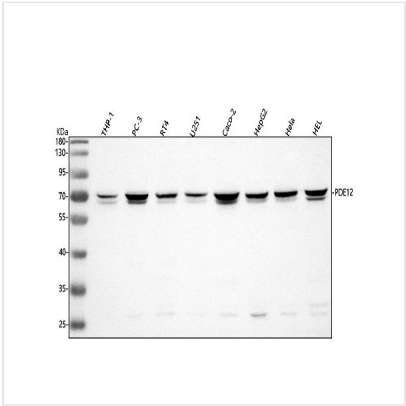
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of Caco-2 cells using anti-PDE12 antibody (AAA127670).Overlay histogram showing Caco-2 cells stained with AAA127670 (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-PDE12 Antibody (AAA127670, 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 2. Western blot analysis of PDE12 using anti-PDE12 antibody (AAA127670).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: rat brain tissue lysates,Lane 2: rat thymus tissue lysates,Lane 3: rat PC-12 whole cell lysates,Lane 4: mouse brain tissue lysates,Lane 5: mouse thymus tissue lysates,Lane 6: mouse NIH/3T3 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-PDE12 antigen affinity purified polyclonal antibody (#AAA127670) 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 PDE12 at approximately 70 kDa. The expected band size for PDE12 is at 67,65 kDa.



WB (Western Blot)

Figure 1. Western blot analysis of PDE12 using anti-PDE12 antibody (AAA127670).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 THP-1 whole cell lysates,Lane 2: human PC-3 whole cell lysates,Lane 3: human RT4 whole cell lysates,Lane 4: human U251 whole cell lysates,Lane 5: human Caco-2 whole cell lysates,Lane 6: human HepG2 whole cell lysates,Lane 7: human Hela whole cell lysates,Lane 8: human HEL 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-PDE12 antigen affinity purified polyclonal antibody (#AAA127670) at 0.25ug/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 PDE12 at approximately 70 kDa. The expected band size for PDE12 is at 67,65 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PDE12 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-PDE12 antibody	Primary Antibodies ; Signal Transduction ; Signaling Pathway ; Small G Proteins
References	1. Kubota, K., Nakahara, K., Ohtsuka, T., Yoshida, S., Kawaguchi, J., Fujita, Y., Ozeki, Y., Hara, A., Yoshimura, C., Furukawa, H., Haruyama, H., Ichikawa, K., Yamashita, M., Matsuoka, T., Iijima, Y. Identification of 2-prime-phosphodiesterase, which plays a role in the 2-5A system regulated by interferon. J. Biol. Chem. 279: 37832-37841, 2004.2. Rorbach, J., Nicholls, T. J. J., Minczuk, M. PDE12 removes mitochondrial RNA poly(A) tails and controls translation in human mitochondria. Nucleic Acids Res. 39: 7750-7763, 2011. 3. Wood, E. R., Bledsoe, R., Chai, J., Daka, P., Deng, H., Ding, Y., Harris-Gurley, S., Kryn, L. H., Nartey, E., Nichols, J., Nolte, R. T., Prabhu, N., and 12 others. The role of phosphodiesterase 12 (PDE12) as a negative regulator of the innate immune response and the discovery of antiviral inhibitors. J. Biol. Chem. 290: 19681-19696, 2015.

NCBI AND UNIPROT INFORMATION

NCBI GI #	189027129
NCBI GeneID	201626
NCBI Accession #	NP_808881.3
NCBI GenBank Nucleotide #	NM_177966.6
UniProt Accession #	Q6L8Q7 ; Q8IYU3 ; Q8NDU2 ; Q8TE78 ; B4DTU8
Molecular Weight	58,890 Da
NCBI Official Full Name	2',5'-phosphodiesterase 12 isoform 1
NCBI Official Synonym Full Names	phosphodiesterase 12
NCBI Official Symbol	PDE12
NCBI Official Synonym Symbols	2-PDE; 2'-PDE
NCBI Protein Information	2',5'-phosphodiesterase 12
UniProt Protein Name	2',5'-phosphodiesterase 12
UniProt Gene Name	PDE12
UniProt Synonym Gene Names	2'-PDE; 2-PDE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pde12-antibody-flow-cytometry-western-blot-elisa/127670>