

Rabbit PYCR2 Polyclonal Antibody | anti-PYCR2 antibody

Anti-PYCR2 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127645	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

PYCR2; Polyclonal Antibody; Anti-PYCR2 Antibody Picoband; Protein NDRG3; pre T cell antigen receptor alpha; Pre T-cell antigen receptor alpha; pT-alpha; pTa; pT-alpha-TCR; PTCRA; anti-PYCR2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Expressed in immature but not mature T-cells. Also found in CD34+ cells from peripheral blood, CD34+ precursors from umbilical cord blood and adult bone marrow.
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-PYCR2 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human PYCR2 recombinant protein (Position: Q10-D320).
Subcellular Localization	Membrane, Single-pass type I membrane protein
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	The pre-T-cell receptor complex (composed of PTCRA, TCRB and the CD3 complex) regulates early T-cell development.
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.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of JK cells using anti-PYCR2 antibody (AAA127645).Overlay histogram showing JK cells stained with AAA127645 (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-PYCR2 Antibody (AAA127645, 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.



IF (Immunofluorescence)

Figure 2. IF analysis of PYCR2 using anti-PYCR2 antibody (AAA127645).PYCR2 was detected in an immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-PYCR2 Antibody (AAA127645) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of PYCR2 using anti-PYCR2 antibody (AAA127645). 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 Hela whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human THP-1 whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat thymus tissue lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse thymus tissue 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-PYCR2 antigen affinity purified polyclonal antibody (#AAA127645) 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 PYCR2 at approximately 35 kDa. The expected band size for PYCR2 is at 34,35 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PYCR2 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-PYCR2 antibody	Primary Antibodies; Hematopoietic Progenitors; Lymphoid; Stem Cells; T Lymphocytic Lineage
References	1. De Ingeniis, J., Ratnikov, B., Richardson, A. D., Scott, D. A., Aza-Blanc, P., De, S. K., Kazanov, M., Pellecchia, M., Ronai, Z., Osterman, A. L., Smith, J. W. Functional specialization in proline biosynthesis of melanoma. PLoS One 7: e45190, 2012. Note: Electronic Article.2. Escande-Beillard, N., Loh, A., Saleem, S. N., Kanata, K., Hashimoto, Y., Altunoglu, U., Metoska, A., Grandjean, J., Ng, F. M., Pomp, O., Baburajendran, N., Wong, J., Hill, J., Beillard, E., Cozzone, P., Zaki, M., Kayserili, H., Hamada, H., Shiratori, H., Reversade, B. Loss of PYCR2 causes neurodegeneration by increasing cerebral glycine levels via SHMT2. Neuron 107: 82-94, 2020. 3. Nakayama, T., Al-Maawali, A., El-Quessny, M., Rajab, A., Khalil, S., Stoler, J. M., Tan, W.-H., Nasir, R., Schmitz-Abe, K., Hill, R. S., Partlow, J. N., Al-Saffar, M., and 10 others. Mutations in PYCR2, encoding pyrroline-5-carboxylate reductase 2, cause microcephaly and hypomyelination. Am. J. Hum. Genet. 96: 709-719, 2015.

NCBI AND UNIPROT INFORMATION

NCBI GI #	60390642
NCBI GeneID	29920
UniProt Accession #	Q96C36; Q7Z515; Q9Y5J4; A8K798
Molecular Weight	320
NCBI Official Full Name	Pyrroline-5-carboxylate reductase 2
NCBI Official Synonym Full Names	pyrroline-5-carboxylate reductase family, member 2
NCBI Official Symbol	PYCR2
NCBI Official Synonym Symbols	P5CR2
NCBI Protein Information	pyrroline-5-carboxylate reductase 2; P5C reductase 2; pyrroline 5-carboxylate reductase isoform
UniProt Protein Name	Pyrroline-5-carboxylate reductase 2
UniProt Gene Name	PYCR2
UniProt Synonym Gene Names	P5C reductase 2; P5CR 2
UniProt Entry Name	P5CR2_HUMAN

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/pycr2-antibody-flow-cytometry-immunofluorescence-immunocytochemistry-western-blot-elisa/127645>