

Rabbit PHGDH Polyclonal Antibody | anti-PHGDH antibody

Anti-PHGDH Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA128207	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

PHGDH; Polyclonal Antibody; Anti-PHGDH Antibody Picoband; D-3-phosphoglycerate dehydrogenase; phosphoglycerate dehydrogenase; PGDH3; 3-PGDH; EC 1.1.1.95; 2-oxoglutarate reductase; EC 1.1.1.399; Malate dehydrogenase; EC 1.1.1.37; anti-PHGDH antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-PHGDH antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E coli-derived human PHGDH recombinant protein (Position: L15-F533). Human PHGDH shares 94.4% and 94.2% amino acid (aa) sequence identity with mouse and rat PHGDH, respectively.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Cross Reactivity	No cross-reactivity with other proteins
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



IF (Immunofluorescence)

Figure 3. IF analysis of PHGDH using anti-PHGDH antibody (AAA128207).PHGDH 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 4ug/mL rabbit anti-PHGDH Antibody (AAA128207) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Rabbit IgG 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.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of PHGDH using anti-PHGDH antibody (AAA128207).PHGDH was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-PHGDH Antibody (AAA128207) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of PHGDH using anti-PHGDH antibody (AAA128207). 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 U251 whole cell lysates, Lane 2: human Jurkat whole cell lysates, Lane 3: human HEL whole cell lysates, Lane 4: human K562 whole cell lysates, Lane 5: rat liver tissue lysates, Lane 6: rat kidney tissue lysates, Lane 7: mouse liver tissue lysates, Lane 8: mouse kidney 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-PHGDH antigen affinity purified polyclonal antibody (AAA128207) 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 PHGDH at approximately 57 kDa. The expected band size for PHGDH is at 57 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-PHGDH 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-PHGDH antibody	Primary Antibodies
References	1. Acuna-Hidalgo, R., Schanze, D., Kariminejad, A., Nordgren, A., Kariminejad, M. H., Conner, P., Grigelioniene, G., Nilsson, D., Nordenskjold, M., Wedell, A., Freyer, C., Wredenberg, A., and 18 others. Neu-Laxova syndrome is a heterogeneous metabolic disorder caused by defects in enzymes of the L-serine biosynthesis pathway. Am. J. Hum. Genet. 95: 285-293, 2014.2. Baek, J. Y., Jun, D. Y., Taub, D., Kim, Y. H. Assignment of human 3-phosphoglycerate dehydrogenase (PHGDH) to human chromosome band 1p12 by fluorescence in situ hybridization. Cytogenet. Cell Genet. 89: 6-7, 2000.3. Benke, P. J., Hidalgo, R. J., Braffman, B. H., Jans, J., van Gassen, K. L. I., Sunbul, R., El-Hattab, A. W. Infantile serine biosynthesis defect due to phosphoglycerate dehydrogenase deficiency: variability in phenotype and treatment response, novel mutations, and diagnostic challenges. J. Child Neurol. 32: 543-549, 2017.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21264510
NCBI GeneID	26227
UniProt Accession #	O43175; Q5SZU3; Q9BQ01; B2RD08
Molecular Weight	533
NCBI Official Full Name	D-3-phosphoglycerate dehydrogenase
NCBI Official Synonym Full Names	phosphoglycerate dehydrogenase
NCBI Official Symbol	PHGDH
NCBI Official Synonym Symbols	NLS; PDG; PGD; NLS1; PGAD; PGDH; SERA; 3PGDH; 3-PGDH; PHGDHD; HEL-S-113
NCBI Protein Information	D-3-phosphoglycerate dehydrogenase; epididymis secretory protein Li 113
UniProt Protein Name	D-3-phosphoglycerate dehydrogenase
UniProt Gene Name	PHGDH
UniProt Synonym Gene Names	PGDH3; 3-PGDH
UniProt Entry Name	SERA_HUMAN

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/phgdh-antibody-flow-cytometry-immunofluorescence-immunocytochemistry-immunohistochemistry-western-blot-elisa/128207>