

Rabbit PHGDH Polyclonal Antibody | anti-PHGDH antibody

Anti-PHGDH Antibody, Rabbit Polyclonal

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255112	Rabbit	Human Predicted to React with: Pongo abelii, Pig, Macfa (Species predicted to react based on 100% sequence homology)	Immunoprecipitation, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Western Blot

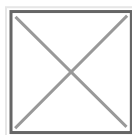
PRODUCT SYNONYMS

PHGDH; Polyclonal Antibody; Anti-PHGDH Antibody; Rabbit Polyclonal; PHGDH Antibody; Rabbit PAb; Antigen Affinity Purified; phosphoglycerate dehydrogenase; Anti-3-PGDH Antibody; Anti-3PGDH Antibody; Anti-HEL-S-113 Antibody; Anti-NLS Antibody; Anti-NLS1 Antibody; Anti-PDG Antibody; Anti-PGAD Antibody; Anti-PGD Antibody; Anti-PGDH Antibody; Anti-PHGDHD Antibody; Anti-SERA Antibody; anti-PHGDH antibody

PRODUCT SPECIFICATIONS

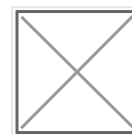
Host	Rabbit
Reactivity	Human Predicted to React with: Pongo abelii, Pig, Macfa (Species predicted to react based on 100% sequence homology)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Human PHGDH
Purity/Purification	Protein A & Antigen Affinity
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-PHGDH antibody	IP (Immunoprecipitation), IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to the center region of the Human PHGDH
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with a synthetic peptide corresponding to the center region of the Human PHGDH, and purified by antigen affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.

IMAGES



IP (Immunoprecipitation)

PHGDH was immunoprecipitated using: Lane A: 0.5 mg HeLa Whole Cell Lysate 4 uL anti-PHGDH rabbit polyclonal antibody and 60 ug of Immunomagnetic beads Protein A/G. Primary antibody: Anti-PHGDH rabbit polyclonal antibody, at 1:100 dilution. Secondary antibody: Clean-Blot IP Detection Reagent (HRP) at 1:1000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 57 kDa. Observed band size: 57 kDa.



IF (Immunofluorescence)

Immunofluorescence staining of PHGDH in HeLa cells. Cells were fixed with 4% PFA, permeabilized with 0.1% Triton X-100 in PBS, blocked with 10% serum, and incubated with rabbit anti-human PHGDH polyclonal antibody (dilution ratio 1:1000) at 4 degree C overnight. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green). Positive staining was localized to cytoplasm.



IHC (Immunohistochemistry)

Immunochemical staining of human PHGDH in human breast carcinoma with rabbit polyclonal antibody at 1:1000 dilution, formalin-fixed paraffin embedded sections.



WB (Western Blot)

Anti-PHGDH rabbit polyclonal antibody at 1:500 dilution Lane A: A431 Whole Cell Lysate Lane B: HeLa Whole Cell Lysate Lane C: Jurkat Whole Cell Lysate Lysates/proteins at 30 ug per lane. Secondary Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 57 kDa Observed band size: 57 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-PHGDH antibody	PHGDH is a member of the D-isomer specific 2-hydroxyacid dehydrogenase family. This new family consists of D-isomer-stereospecific enzymes. The conserved residues in this family appear to be the residues involved in the substrate binding and the catalytic reaction, and thus to be targets for site-directed mutagenesis. A number of NAD-dependent 2-hydroxyacid dehydrogenases which seem to be specific for the D-isomer of their substrate have been shown to be functionally and structurally related. PHGDH catalyzes the transition of 3-phosphoglycerate into 3-phosphohydroxypyruvate, which is the first and rate-limiting step in the phosphorylated pathway of serine biosynthesis, using NAD ⁺ /NADH as a cofactor. Overexpression of PHGDH may cause certain breast cancers. Defects in PHGDH are the cause of phosphoglycerate dehydrogenase deficiency which is characterized by congenital microcephaly, psychomotor retardation, and seizures.
References	Pind S, et al. (2002) V490M, a common mutation in 3-phosphoglycerate dehydrogenase deficiency, causes enzyme deficiency by decreasing the yield of mature enzyme. J Biol Chem. 277 (9): 7136-43. Du H, et al. (2010) 3-Phosphoglycerate dehydrogenase expression is regulated by HOXA10 in murine endometrium and human endometrial cells. Reproduction. 139 (1): 237-45. Possemato R, et al. (2011) Functional genomics reveal that the serine synthesis pathway is essential in breast cancer. Nature. 476 (7360): 346-50.

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

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/phgdh-antibody-immunoprecipitation-immunofluorescence-immunocytochemistry-immunohistochemistry-western-blot-elisa/255112>