

Datasheet for ABIN910995

**anti-PHGDH antibody (AA 101-200) (Cy5)**[Go to Product page](#)

## Overview

|                      |                                                                                                                                |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Quantity:            | 100 µL                                                                                                                         |
| Target:              | PHGDH                                                                                                                          |
| Binding Specificity: | AA 101-200                                                                                                                     |
| Reactivity:          | Human                                                                                                                          |
| Host:                | Rabbit                                                                                                                         |
| Clonality:           | Polyclonal                                                                                                                     |
| Conjugate:           | This PHGDH antibody is conjugated to Cy5                                                                                       |
| Application:         | Western Blotting (WB), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)) |

## Product Details

|                       |                                                           |
|-----------------------|-----------------------------------------------------------|
| Immunogen:            | KLH conjugated synthetic peptide derived from human PHGDH |
| Isotype:              | IgG                                                       |
| Predicted Reactivity: | Human, Mouse, Rat, Dog, Cow, Sheep, Pig, Horse, Rabbit    |
| Purification:         | Purified by Protein A.                                    |

## Target Details

|                   |                                                                                    |
|-------------------|------------------------------------------------------------------------------------|
| Target:           | PHGDH                                                                              |
| Alternative Name: | PHGDH ( <a href="#">PHGDH Products</a> )                                           |
| Background:       | Synonyms: NLS, PDG, PGD, NLS1, PGAD, PGDH, SERA, 3PGDH, 3-PGDH, PHGDHD, HEL-S-113, |

## Target Details

D-3-phosphoglycerate dehydrogenase, PHGDH, PGDH3

Background: The survival and development of central neurons require the supply of trophic factors by glial cells. The trophic actions of glial cells on Purkinje neurons are mediated by L-serine and glycine, which are glia-derived trophic factors synthesized by 3PGDH (1). 3PGDH protein is 544 amino acids in length. Two distinct mRNA transcripts that encode for 3PGDH protein in normal human tissues are dominant 2.1 kb mRNA, which is highly expressed in prostate, testis, ovary, brain, liver, kidney, and pancreas, and weakly expressed in thymus, colon, and heart, and 710 bp mRNA, which is highly expressed in heart and skeletal muscle (2). 3PGDH is regulated at the transcriptional level depending on tissue specificity and cellular proliferative status (2). 3PGDH protein is also highly expressed in adult and fetal brain tissues (3). 3PGDH protein plays an important role in the metabolism, development, and function of the central nervous system (3) and its deficiency is a treatable congenital error (4-5) that impairs L-serine biosynthesis which is characterized by congenital microcephaly, psychomotor retardation, and seizures (3).

Gene ID: 26227

UniProt: [O43175](#)

Pathways: [Metabolism of Steroid Hormones and Vitamin D, Warburg Effect](#)

## Application Details

Application Notes: IF(IHC-P) 1:50-200  
IF(IHC-F) 1:50-200  
IF(ICC) 1:50-200

Restrictions: For Research Use only

## Handling

Format: Liquid

Concentration: 1 µg/µL

Buffer: Aqueous buffered solution containing 0.01M TBS ( pH 7.4) with 1 % BSA, 0.03 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Handling

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|                  |                                                                                   |
|------------------|-----------------------------------------------------------------------------------|
| Storage:         | -20 °C                                                                            |
| Storage Comment: | Store at -20°C. Aliquot into multiple vials to avoid repeated freeze-thaw cycles. |
| Expiry Date:     | 12 months                                                                         |