

**PHGDH Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2936c**

**Specification**

**PHGDH Antibody (Center) - Product Information**

Application	WB, IHC-P, FC,E
Primary Accession	<a href="#">O43175</a>
Other Accession	<a href="#">O08651</a> , <a href="#">Q61753</a> , <a href="#">Q60HD7</a> , <a href="#">NP_006614</a>
Reactivity	Human
Predicted	Monkey, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	249-277

**PHGDH Antibody (Center) - Additional Information**

**Gene ID** 26227

**Other Names**

D-3-phosphoglycerate dehydrogenase,  
3-PGDH, PHGDH, PGDH3

**Target/Specificity**

This PHGDH antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 249-277 amino acids from the Central region of human PHGDH.

**Dilution**

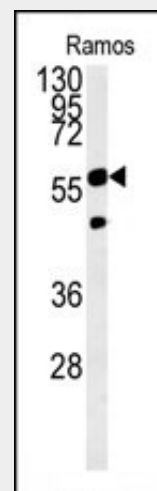
WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50

**Format**

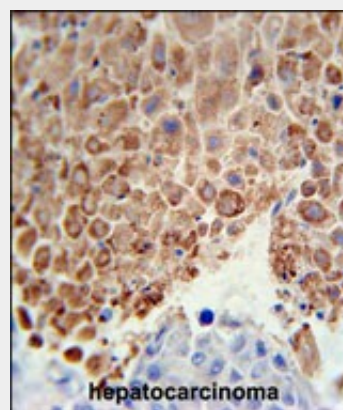
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw



PHGDH Antibody (Center) (Cat. #AP2936c) western blot analysis in Ramos cell line lysates (15ug/lane). This demonstrates the PHGDH antibody detected the PHGDH protein (arrow).



PHGDH Antibody (Center) (Cat. #AP2936c) immunohistochemistry analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the PHGDH Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

cycles.

### Precautions

PHGDH Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

### PHGDH Antibody (Center) - Protein Information

**Name** PHGDH

**Synonyms** PGDH3

### Function

Catalyzes the reversible oxidation of 3-phospho-D-glycerate to 3-phosphonooxypyruvate, the first step of the phosphorylated L- serine biosynthesis pathway. Also catalyzes the reversible oxidation of 2-hydroxyglutarate to 2-oxoglutarate and the reversible oxidation of (S)-malate to oxaloacetate.

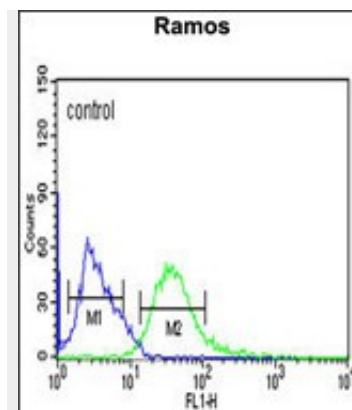
### PHGDH Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### PHGDH Antibody (Center) - Citations

- [Quantitative proteomic analysis of the miR-148a-associated mechanisms of metastasis in non-small cell lung cancer.](#)
- [Systematic analysis of mRNA expression profiles in NSCLC cell lines to screen metastasis-related genes.](#)



PHGDH Antibody (Center) (Cat. #AP2936c) flow cytometric analysis of Ramos cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### PHGDH Antibody (Center) - Background

3-Phosphoglycerate dehydrogenase (PHGDH; EC 1.1.1.95) 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<sup>+</sup>/NADH as a cofactor.

### PHGDH Antibody (Center) - References

Du, H., et al. Reproduction 139(1):237-245(2010)  
Burton, R.L., et al. Biochemistry 48(22):4808-4815(2009)  
Kim, J.W., et al. Psychiatr. Genet. 19 (3), 161 (2009) :  
Tabatabaie, L., et al. Hum. Mutat. 30(5):749-756(2009)