

# PHGDH Recombinant antibody

Catalog Number: 81986-1-RR

Featured Product

## Basic Information

### Catalog Number:

81986-1-RR

### Size:

500 µg/ml

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG6445

### GenBank Accession Number:

BC000303

### GeneID (NCBI):

26227

### UNIPROT ID:

O43175

### Full Name:

phosphoglycerate dehydrogenase

### Calculated MW:

57 kDa

### Observed MW:

57 kDa

### Purification Method:

Protein A purification

### CloneNo.:

5L16

### Recommended Dilutions:

WB 1:5000-1:50000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

## Applications

### Tested Applications:

WB, IP, IHC, ELISA

### Species Specificity:

Human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB** : HeLa cells, HEK-293 cells, Jurkat cells, mouse pancreas tissue, rat pancreas tissue

**IP** : HeLa cells,

**IHC** : human colon cancer tissue,

## Background Information

PHGDH(D-3-phosphoglycerate dehydrogenase) is also named as 3-PGDH, PGDH3 and belongs to the D-isomer specific 2-hydroxyacid dehydrogenase family. It 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. 3-PGDH deficiency is a rare recessive inborn error in the biosynthesis of the amino acid L-serine characterized clinically by congenital microcephaly, psychomotor retardation, and intractable seizures(PMID:19235232).

## Storage

### Storage:

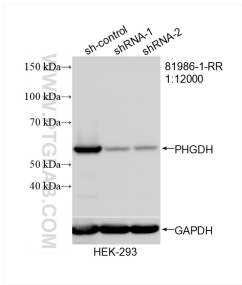
Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

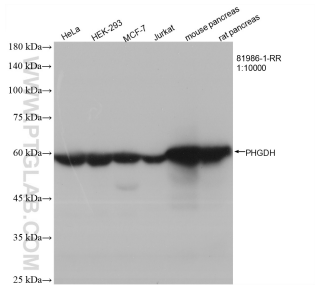
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

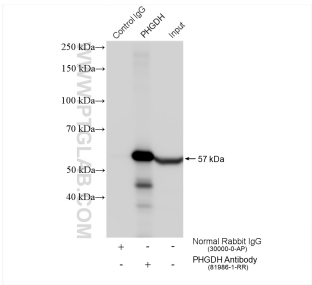
Selected Validation Data



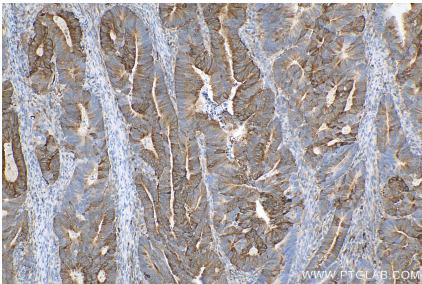
WB result of PHGDH antibody (81986-1-RR; 1:12000; incubated at room temperature for 1.5 hours) with sh-Control and sh-PHGDH transfected HEK-293 cells.



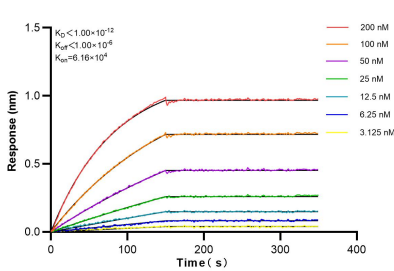
Various lysates were subjected to SDS PAGE followed by western blot with 81986-1-RR (PHGDH antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



IP result of anti-PHGDH (IP: 81986-1-RR, 4ug; Detection: 81986-1-RR 1:10000) with HeLa cells lysate 1760 ug.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 81986-1-RR (PHGDH antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Biolayer interferometry (BLI) kinetic assays of 81986-1-RR against Human PHGDH were performed. The affinity constant is below 1 pM.