

Product Information

Size:

50ul

Reactivity:

Human, Mouse, Rat

Source:

Rabbit

Isotype:

IgG

Applications:

ELISA, WB

Recommended dilutions:

ELISA:1:1000-1:2000, WB:1:200-1:1000

Protein Background:

Inhibits protein synthesis at the translation initiation level, in response to various stress conditions, including oxidative stress, heme deficiency, osmotic shock and heat shock. Exerts its function through the phosphorylation of EIF2S1 at 'Ser-48' and 'Ser-51', thus preventing its recycling. Binds heme forming a 1:1 complex through a cysteine thiolate and histidine nitrogenous coordination. This binding occurs with moderate affinity, allowing it to sense the heme concentration within the cell. Thanks to this unique heme-sensing capacity, plays a crucial role to shut off protein synthesis during acute heme-deficient conditions. In red blood cells (RBCs), controls hemoglobin synthesis ensuring a coordinated regulation of the synthesis of its heme and globin moieties. Thus plays an essential protective role for RBC survival in anemias of iron deficiency. Similarly, in hepatocytes, involved in heme-mediated translational control of CYP2B and CYP3A and possibly other hepatic P450 cytochromes.

Gene ID:

PHGDH

Uniprot

O43175

Synonyms:

phosphoglycerate dehydrogenase

Immunogen:

Synthetic peptide of human PHGDH.

Storage:

-20° C, pH7.4 PBS, 0.05% NaN₃, 40% Glycerol

Product Images



Gel: 8%SDS-PAGE, Lysate: 40 ug, Lane: 293T cells, Primary antibody: PACO20221(PHGDH Antibody) at dilution 1/200, Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution, Exposure time: 1 minute.