

Product Information

Size:

50ul

Reactivity:

Human

Source:

Rabbit

Isotype:

IgG

Applications:

ELISA, IHC

Recommended dilutions:

ELISA:1:1000-1:2000, IHC:1:25-1:100

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:

PHKA2

Uniprot

P46019

Synonyms:

phosphorylase kinase, alpha 2 (liver)

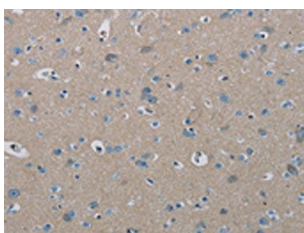
Immunogen:

Synthetic peptide of human PHKA2.

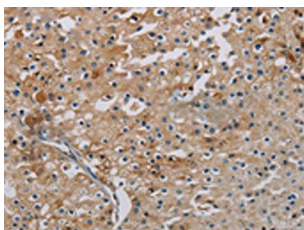
Storage:

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

Product Images



The image on the left is immunohistochemistry of paraffin-embedded Human brain tissue using PACO20223(PHKA2 Antibody) at dilution 1/30, on the right is treated with synthetic peptide. (Original magnification: x—200).



The image on the left is immunohistochemistry of paraffin-embedded Human prostate cancer tissue using PACO20223(PHKA2 Antibody) at dilution 1/30, on the right is treated with synthetic peptide. (Original magnification: x—200).