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Datasheet for ABIN7152140

anti-EIF2AK1 antibody (AA 1-86) (HRP)

Overview

Quantity:	100 µg
Target:	EIF2AK1
Binding Specificity:	AA 1-86
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EIF2AK1 antibody is conjugated to HRP
Application:	ELISA

Product Details

Immunogen:	Recombinant Human Eukaryotic translation initiation factor 2-alpha kinase 1 protein (1-86AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	EIF2AK1
Alternative Name:	EIF2AK1 (EIF2AK1 Products)
Background:	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.

Target Details

Exerts its function through the phosphorylation of EIF2S1 at 'Ser-48' and 'Ser-51', thus preventing its recycling. Binds hemin 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. May also contain ER stress during acute heme-deficient conditions (By similarity).

Aliases: E2AK1_HUMAN antibody, EC 2.7.11.1 antibody, Eif2ak1 antibody, Eukaryotic translation initiation factor 2 alpha kinase 1 antibody, Eukaryotic translation initiation factor 2-alpha kinase 1 antibody, HCR antibody, Heme controlled repressor antibody, Heme regulated eukaryotic initiation factor eIF 2 alpha kinase antibody, Heme regulated inhibitor antibody, Heme regulated initiation factor 2 alpha kinase antibody, Heme regulated repressor antibody, Heme sensitive initiation factor 2a kinase antibody, Heme-controlled repressor antibody, Heme-regulated eukaryotic initiation factor eIF-2-alpha kinase antibody, Heme-regulated inhibitor antibody, Hemin sensitive initiation factor 2 alpha kinase antibody, Hemin-sensitive initiation factor 2-alpha kinase antibody, HRI antibody, KIAA1369 antibody, PRO1362 antibody

UniProt: [Q9BQI3](#)

Pathways: [Hepatitis C](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: Preservative: 0.03 % Proclin 300
Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4

Preservative: ProClin

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

Handling

Storage: -20 °C, -80 °C

Storage Comment: Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.