Product name:	HRI Rabbit Polyclonal Antibody
Cat number:	ABN12205
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human EIF2AK1. AA range:571-620
Reactivity:	Human,Mouse,Monkey
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:100-1:300,ELISA 1:10000-1:20000
Molecular Weight:	71kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The protein encoded by this gene acts at the level of translation initiation to downregulate protein synthesis in response to stress. The encoded protein is a kinase that can be inactivated by hemin. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2008],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Hemin inactivates EIF2AK1 by promoting the formation of a disulfide-linked homodimer. Binding of nitric oxide (NO) to the heme iron in the N-terminal heme-binding domain activates the kinase activity, while binding of carbon monoxide (CO) suppresses kinase activity.,function:Mediates down-regulation of protein synthesis in response to various stress conditions by the phosphorylation of EIF2S1 at 'Ser-48' and 'Ser-51'. Protein synthesis is inhibited at the level of initiation.,miscellaneous:Can bind 2 molecules of heme per polypeptide chain.,PTM:Activated by autophosphorylation; phosphorylated predominantly on serine and threonine residues, but also on tyrosine residues.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 HRM (heme regulatory motif) repeats.,subunit:Synthesized in an inactive form that binds to the N-terminal domain of CDC37. Has to be associated with a multiprotein complex containing Hsp90, CDC37 and PPP5C for maturation and activation by autophosphorylation. The phosphatase PPP5C modulates this activation. Homodimer; non-covalently bound in the absence of hemin. Converted to an inactive disulfide linked homodimer in the presence of hemin.,tissue specificity:Detected in heart, brain, placenta, lung, liver, skeletal muscle, pancreas, kidney, spleen, muscle and stomach.,