



HRI Polyclonal Antibody

Catalog No	BYab-14776
Isotype	IgG
Reactivity	Human;Mouse;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	EIF2AK1
Protein Name	Eukaryotic translation initiation factor 2-alpha kinase 1
Immunogen	The antiserum was produced against synthesized peptide derived from human EIF2AK1. AA range:571-620
Specificity	HRI Polyclonal Antibody detects endogenous levels of HRI protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. IF 1:100-300 Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	EIF2AK1; HRI; KIAA1369; Eukaryotic translation initiation factor 2-alpha kinase 1; Heme-controlled repressor; HCR; Heme-regulated eukaryotic initiation factor eIF-2-alpha kinase; Heme-regulated inhibitor; Hemin-sensitive initiation factor 2
Observed Band	71kD
Cell Pathway	cytoplasm,
Tissue Specificity	Expressed predominantly in erythroid cells (PubMed:20071449). Expressed at much lower levels in hepatocytes (at protein level) (PubMed:20071449).
Function	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

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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. GCN

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],

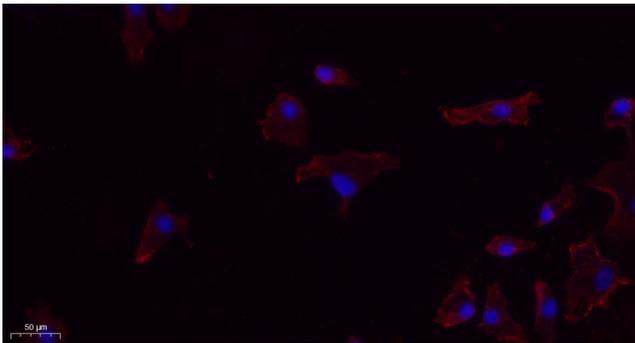
matters needing attention

Avoid repeated freezing and thawing!

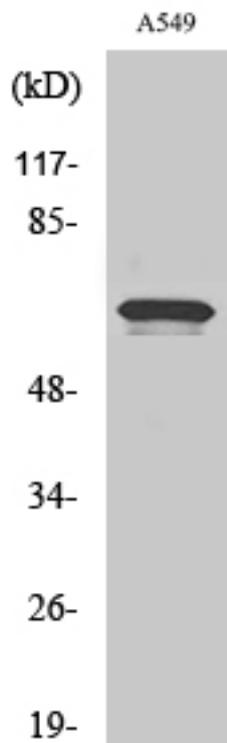
Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images

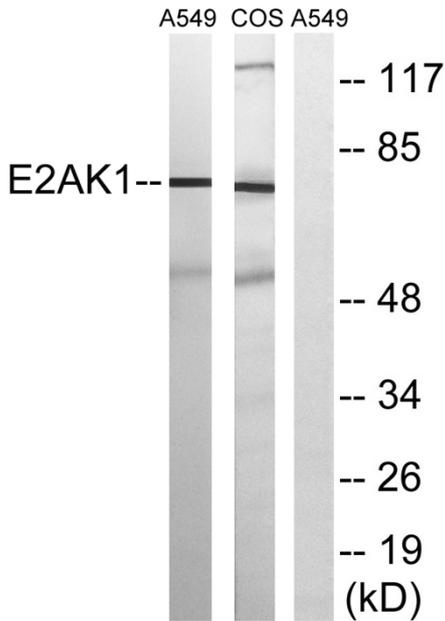


Immunofluorescence analysis of A549. 1,primary Antibody(red) was diluted at 1:200(4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



Western Blot analysis of various cells using HRI Polyclonal Antibody

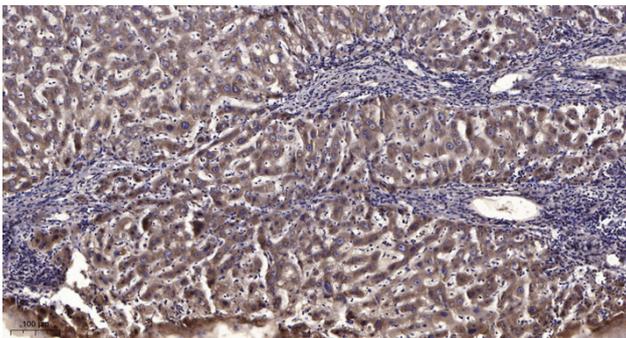
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Western blot analysis of lysates from A549 and COS7 cells, using EIF2AK1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from COLO205 cells using EIF2AK1 antibody.



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).