

For Research Use Only

# EIF2AK1 Polyclonal antibody

Catalog Number: 20499-1-AP

Featured Product

10 Publications



## Basic Information

**Catalog Number:**

20499-1-AP

**Size:**

150ul, Concentration: 550 µg/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG14236

**GenBank Accession Number:**

BC006524

**GeneID (NCBI):**

27102

**UNIPROT ID:**

Q9BQI3

**Full Name:**

eukaryotic translation initiation factor 2-alpha kinase 1

**Calculated MW:**

630 aa, 71 kDa

**Observed MW:**

71 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:1000-1:6000

IHC 1:50-1:500

IF 1:50-1:500

## Applications

**Tested Applications:**

WB, IF, IHC, ELISA

**Cited Applications:**

WB, IP, CoIP

**Species Specificity:**

human

**Cited Species:**

human

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

WB : HeLa cells, HepG2 cells, HEK-293 cells, K-562 cells, MCF-7 cells

IHC : human breast cancer tissue,

IF : HepG2 cells,

## Background Information

Eukaryotic initiation factor 2a (eIF2a), which is a critical component in the formation of the translation initiation ternary complex (eIF2a/GTP/methionyl transfer RNA), plays a key role in the ER stress response. EIF2AK1, which is activated by heme deficiency and other stimuli, is a major kinase that phosphorylates EIF2-alpha. Phosphorylation of the alpha subunit of EIF2 downregulates protein synthesis in response to various stress conditions. EIF2AK1 has some isoforms with 630aa, 577aa and 422aa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Halime Kalkavan	36055199	Cell	WB,IP
Stefan Bauernfried	33243852	Science	WB
Jack Chun-Chieh Hsu	35316659	Mol Cell	WB

## Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

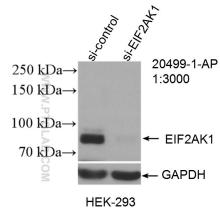
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

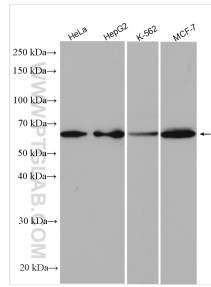
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

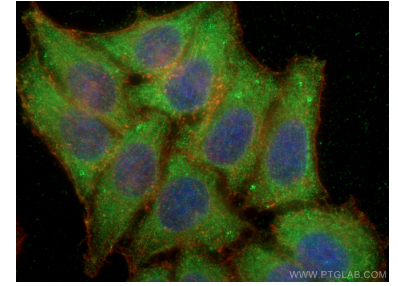
## Selected Validation Data



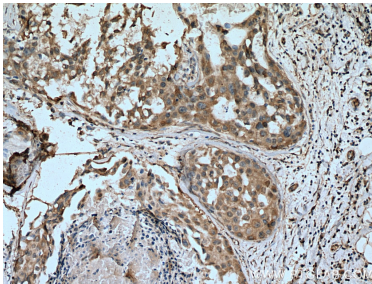
WB result of EIF2AK1 antibody (20499-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-EIF2AK1 transfected HEK-293 cells.



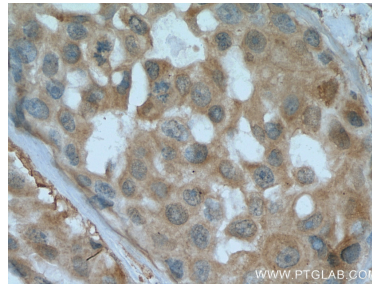
Various lysates were subjected to SDS PAGE followed by western blot with 20499-1-AP (EIF2AK1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using EIF2AK1 antibody (20499-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 20499-1-AP (EIF2AK1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 20499-1-AP (EIF2AK1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).