

For Research Use Only

# EIF2AK1 Polyclonal antibody

Catalog Number: 20499-1-AP

Featured Product

9 Publications



## Basic Information

**Catalog Number:**

20499-1-AP

**Size:**

550 µg/ml

**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:**

IF, IHC, WB, ELISA

**Cited Applications:**

CoIP, IP, WB

**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

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

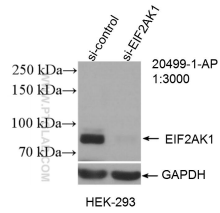
T: 4006900926

E: Proteintech-CN@ptglab.com

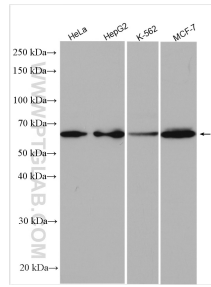
W: ptgcn.com

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

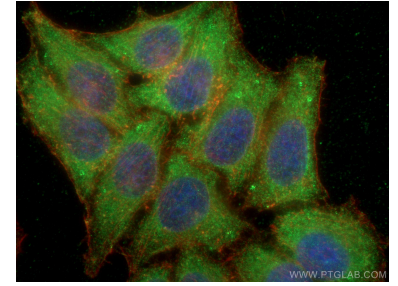
## Selected Validation Data



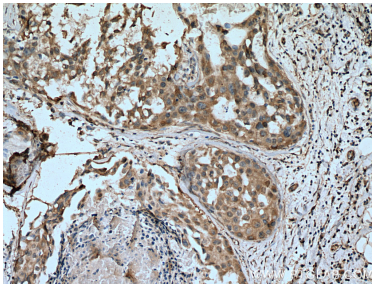
WB result of EIF2AK1 antibody (20499-1-AP; 1:3000; incubated at room temperature for 1.5 hours) with sh-Control and sh-EIF2AK1 transfected HEK-293 cells.



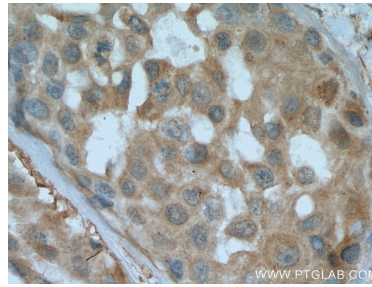
Various lysates were subjected to SDS PAGE followed by western blot with 20499-1-AP (EIF2AK1 antibody) at dilution of 1:3000 incubated at room temperature for 1.5 hours.



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).