

# EIF2AK1 Monoclonal antibody

Catalog Number: 67674-1-Ig

## Basic Information

<b>Catalog Number:</b> 67674-1-Ig	<b>GenBank Accession Number:</b> BC006524	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 1000 µg/ml	<b>GeneID (NCBI):</b> 27102	<b>CloneNo.:</b> 2H1F3
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> Q9BQI3	<b>Recommended Dilutions:</b> WB 1:5000-1:50000 IHC 1:150-1:600 IF/ICC 1:400-1:1600
<b>Isotype:</b> IgG1	<b>Full Name:</b> eukaryotic translation initiation factor 2-alpha kinase 1	
<b>Immunogen Catalog Number:</b> AG16970	<b>Calculated MW:</b> 630 aa, 71 kDa	
	<b>Observed MW:</b> 71 kDa	

## Applications

<b>Tested Applications:</b> WB, IF/ICC, IHC, ELISA	<b>Positive Controls:</b>
<b>Species Specificity:</b> Human	<b>WB :</b> HeLa cells, MCF-7 cells, HepG2 cells, HEK-293 cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, 4T1 cells
<b>Note-IHC:</b> suggested antigen retrieval with <b>TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0</b>	<b>IHC :</b> human breast cancer tissue, <b>IF/ICC :</b> HeLa cells,

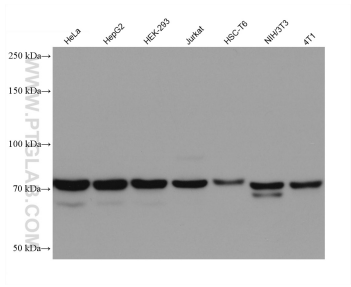
## Background Information

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.

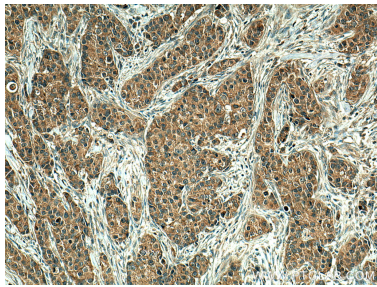
## Storage

**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**

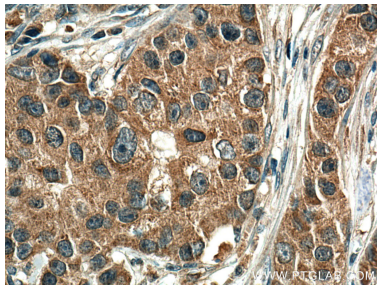
## Selected Validation Data



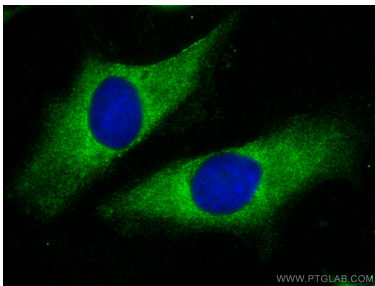
Various lysates were subjected to SDS PAGE followed by western blot with 67674-1-Ig (EIF2AK1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 67674-1-Ig (EIF2AK1 antibody) at dilution of 1:300 (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 67674-1-Ig (EIF2AK1 antibody) at dilution of 1:300 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Methanol) fixed HeLa cells using EIF2AK1 antibody (67674-1-Ig, Clone: 2H1F3 ) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).