

Product Name: KD-Validated EIF2AK2 Mouse Monoclonal Antibody**Catalog #: KVA00606**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1 kappa
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 62.1kDa

Antigen Information

Gene Name	EIF2AK2
Alternative Names	EIF2AK2; Eukaryotic Translation Initiation Factor 2 Alpha Kinase 2; PKR; Protein Kinase R; PPP1R83; PRKR; Protein Kinase, Interferon-Inducible Double Stranded RNA Dependent; Interferon-Induced, Double-Stranded RNA-Activated Protein Kinase; Protein Phosphatase 1, Regulatory Subunit 83; Tyrosine-Protein Kinase EIF2AK2; Protein Kinase RNA-Activated; Protein Kinase RNA-Regulated; P1/EIF-2A Protein Kinase; EIF-2A Protein Kinase 2; P68 Kinase; Eukaryotic Translation Initiation Factor 2-Alpha Kinase 2; Interferon-Inducible RNA-Dependent Protein Kinase; Double Stranded RNA Activated Protein Kinase; Interferon-Inducible EIF2alpha Kinase; EC 2.7.11.1; EC 2.7.10.2; EIF2AK1; LEUDEN; DYT33
Gene ID	5610.0
SwissProt ID	P19525

Immunogen

Recombinant protein of human PKR

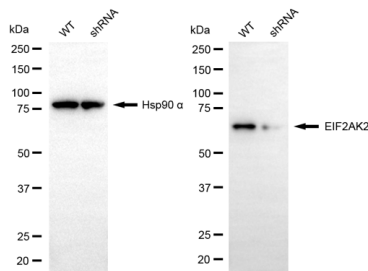
Background

The protein encoded by this gene is a serine/threonine protein kinase that is activated by autophosphorylation after binding to dsRNA. The activated form of the encoded protein can phosphorylate translation initiation factor EIF2S1, which in turn inhibits protein synthesis. This protein is also activated by manganese ions and heparin. The encoded protein plays an important role in the innate immune response against multiple DNA and RNA viruses. [provided by RefSeq, Jul 2021]

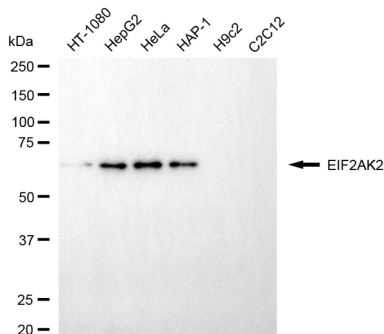
Research Area

Signal Transduction

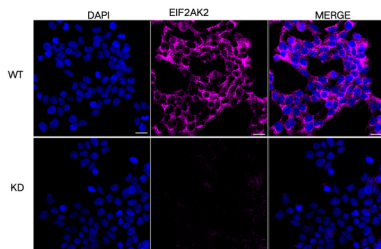
Image Data



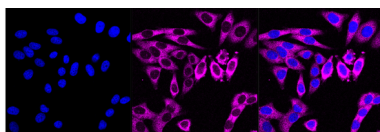
Western blotting analysis using EIF2AK2 antibody (KVA00606). EIF2AK2 expression in wild-type (WT) and EIF2AK2 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with EIF2AK2 antibody (KVA00606, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



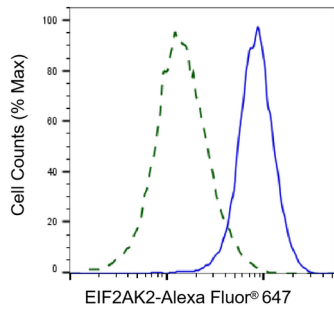
Western blotting analysis using EIF2AK2 antibody (KVA00606). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with EIF2AK2 antibody (KVA00606, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively. EIF2AK2, eukaryotic translation initiation factor 2 alpha kinase 2.



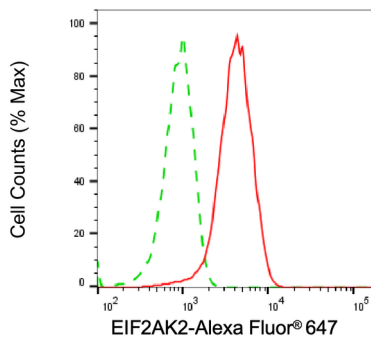
Immunocytochemical staining of HeLa cells using EIF2AK2 antibody (KVA00606, 1:1,000), Top panel: wild-type (WT); Bottom panel: EIF2AK2 shRNA knockdown (KD). Nuclei were stained blue with DAPI; EIF2AK2 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with EIF2AK2 antibody (KVA00606, 1:1,000). Nuclei were stained blue with DAPI; EIF2AK2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Validation of EIF2AK2 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with EIF2AK2 antibody (KVA00606, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of EIF2AK2 expression in HepG2 cells using EIF2AK2 antibody (KVA00606, 1:2,000). Green, isotype control; red, EIF2AK2.