
Product Name: KD-Validated Phospho-eIF2 Alpha (Ser51) Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00806**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit 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; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 36.1kDa

Antigen Information

Gene Name	EIF2S1 EIF2S1; Eukaryotic Translation Initiation Factor 2 Subunit Alpha;
Alternative Names	EIF-2alpha; EIF2A; Eukaryotic Translation Initiation Factor 2, Subunit 1 Alpha, 35kDa; Eukaryotic Translation Initiation Factor 2 Subunit 1; EIF-2-Alpha; EIF2-Alpha; EIF-2A; EIF2; Eukaryotic Translation Initiation Factor 2, Subunit 1 (Alpha, 35kD); EIF-2
Gene ID	1965.0
SwissProt ID	P05198
Immunogen	A synthesized peptide derived from human Phospho-eIF2 alpha (Ser51)

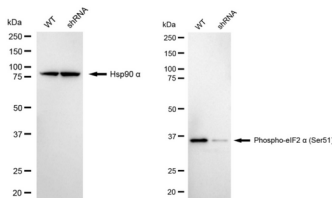
Background

The translation initiation factor EIF2 catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. Binding occurs as a ternary complex of methionyl-tRNA, EIF2, and GTP. EIF2 is composed of 3 nonidentical subunits, the 36-kD EIF2-alpha subunit (EIF2S1), the 38-kD EIF2-beta subunit (EIF2S2; MIM 603908), and the 52-kD EIF2-gamma subunit (EIF2S3; MIM 300161). The rate of formation of the ternary complex is modulated by the phosphorylation state of EIF2-alpha (Ernst et al., 1987 [PubMed 2948954]).[supplied by OMIM, Feb 2010]

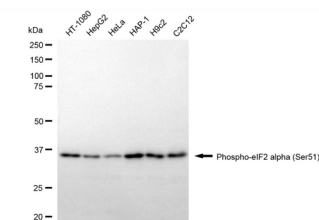
Research Area

Epigenetics and Nuclear Signaling

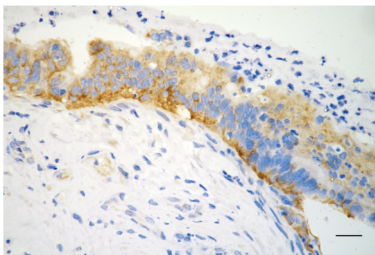
Image Data



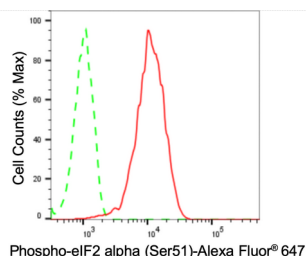
Western blotting analysis using phospho-eIF2 alpha (Ser51) antibody (KVA00806). Phospho-eIF2 alpha (Ser51) expression in wild-type (WT) and EIF2S1 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with phospho-eIF2 alpha (Ser51) antibody (KVA00806, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively. EIF2S1, eukaryotic translation initiation factor 2 subunit alpha.



Western blotting analysis using phospho-eIF2 alpha (Ser51) antibody (KVA00806). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with phospho-eIF2 alpha (Ser51) antibody (KVA00806, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using phospho-eIF2 alpha (Ser51) antibody (KVA00806, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Flow cytometric analysis of phospho-eIF2 alpha (Ser51) expression in HT-1080 cells using phospho-eIF2 alpha (Ser51) antibody (KVA00806, 1:2,000). Green, isotype control; red, phospho-eIF2 alpha (Ser51).