

35-1255: Polyclonal Antibody to eIF2 Alpha (Phospho-Ser51)

Clonality :	Polyclonal
Application :	WB,IHC,IF
Reactivity :	Human,Mouse,Rat
Gene :	EIF2S1
Gene ID :	1965
Uniprot ID :	P05198
Format :	Purified
Alternative Name :	Eukaryotic translation initiation factor 2 subunit alpha, EIF-2A
Isotype :	Rabbit IgG
Immunogen Information :	Peptide sequence around phosphorylation site of serine 51 (E-L-S(p)-R-R) derived from Human eIF2a.

Description

Functions in the early steps of protein synthesis by forming a ternary complex with GTP and initiator tRNA. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation complex. Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF-2 and release of an eIF-2-GDP binary complex. In order for eIF-2 to recycle and catalyze another round of initiation, the GDP bound to eIF-2 must exchange with GTP by way of a reaction catalyzed by eIF-2B. Xavier Saelens, et al. (2001) J. Biol. Chem; 276: 41620 - 41628. Hiroyuki Kubota, et al. (2003) J. Biol. Chem ; 278: 20457 - 20460. Shijian Chu, et al. (2006) Am J Physiol Lung Cell Mol Physiol ; 291: L983 - L992. Eileen Connolly, et al. (2006) Mol. Cell. Biol ; 26: 3955 - 3965.

Product Info

Amount :	50 µl / 100 µl
Content :	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Predicted MW: 38kd, Western blotting: 1:500~1:1000, Immunohistochemistry: 1:50~1:100, Immunofluorescence: 1:100~1:200

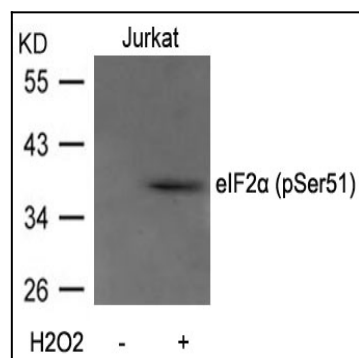


Figure 1: Western blot analysis of extracts from Jurkat cells untreated or treated with H₂O₂ using eIF2a(Phospho-Ser51) Antibody 35-1255 .

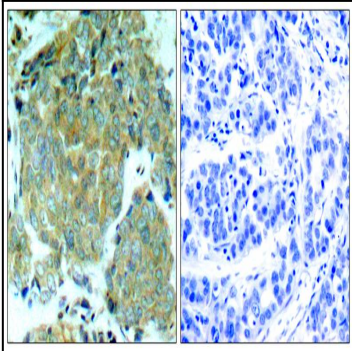


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using eIF2a (Phospho-Ser51) Antibody 35-1255 (left) or the same antibody preincubated with blocking peptide 51279 (right).

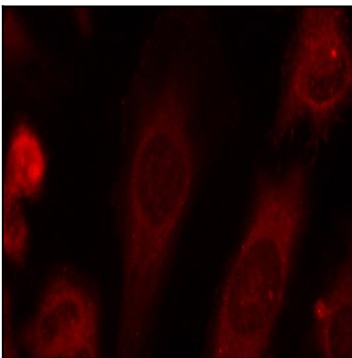


Figure 3: Immunofluorescence staining of methanol-fixed HeLa cells using eIF2a(Phospho-Ser51) Antibody 35-1255 .

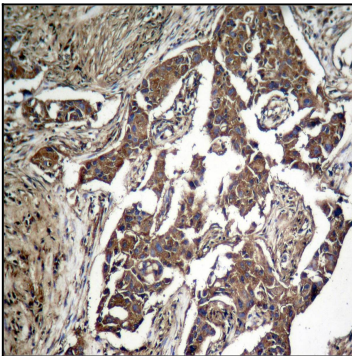


Figure 4: Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue, using eIF2a (Phospho-Ser51) Antibody 35-1255 .