Product Data Sheet: Phospho-eIF2α (S51)

Cat. No:	ABP-0745
Conjugate:	Unconjugated
Size:	100 ug
Clone:	Poly
Concentration:	1mg/ml
Host:	Rb
Isotype:	IgG
Reactivity:	Hu, Ms, Rt
Applications:	Western blotting 1:500-1000 Immunoprecipitation: 1:50-1:100 Immunofluorescence: 1:50-1:200
Molecular Weight:	38 kDa
Purification:	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser51 of human eIF2alpha. Antibodies are purified by protein A and peptide affinity chromatography.
Background:	Phosphorylation of the eukaryotic initiation factor 2 (eIF2) a subunit is a well-documented mechanism to downregulate protein synthesis under a variety of stress conditions. Eukaryotic initiation factor 2 binds GTP and Met-tRNAi and transfers Met-tRNA to the 40S subunit to form the 43S preinitiation complex (1,2). eIF2 promotes a new round of translation initiation by exchanging GDP for GTP, a reaction catalyzed by eIF2B (1,2). Kinases that are activated by viral infection (PKR), endoplasmic reticulum stress (PERK/PEK), amino acid deprivation (GCN2) or heme deficiency (HRI) can phosphorylate the a subunit of eIF2 (3,4). This phosphorylation stabilizes the eIF2-GDP-eIF2B complex and inhibits the turnover of eIF2B. Induction of PKR by IFN-y and TNF-a induces potent phosphorylation of eIF2a at Ser51 (5,6).: Phospho-eIF2alpha (Ser51) Anti¬body detects endogenous eIF2alpha only when phosphory¬lated at Ser51. The antibody does not recognize eIF2alpha phosphorylated at other sites.
Form:	liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage:	Store at –20°C. Avoid freeze / thaw cycles.

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