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Anti-eIF2α Rabbit mAb [92C43]

Catalog No.: A52110

Basic Information

Catalog No. (Cat.No.)	A52110
Host species	Rabbit
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IP,IF,ELISA
Synonyms	eIF2α,eIF2-alpha,eIF-2α,translation initiation factor 2 alpha

Product Information

Target	eIF2α
Molecular Weight(Calculated)	36 kDa
Molecular Weight(Observed)	36 kDa
Isotype	IgG,Kappa
Conjugation	NA
Concentration	0.2 mg/ml
Clonality	Monoclonal
Clone No.	92C43
RRID	NA
Storage buffer	50% Glycerol, 0.05% BSA and 0.05% preservative in PBS (pH 7.2-7.4)
Storage	Stored at -20°C for 1 year. Avoid repeated freeze / thaw cycles.
Shipped at conditions	Frozen
Form	Liquid

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Product Usage Information

Application	Dilution
WB	1:2000-1:10000
IHC	1:1000-1:5000
IP	1:50-1:200
IF	1:200-1:1000
ELISA	1:5000-1:20000

Target Information

Protein Name	Eukaryotic translation initiation factor-2 subunit alpha
Gene Name	*EIF2S1*
Domain	NA
Background	eIF2α (Eukaryotic Translation Initiation Factor 2α Subunit) is a core subunit of the eukaryotic protein translation initiation complex, encoded by the EIF2S1 gene, and acts as a master regulator of global cellular protein translation. Ubiquitously expressed in all eukaryotic cells, eIF2α assembles with eIF2β and eIF2γ to form the eIF2 complex, which binds GTP and initiator methionine tRNA to mediate ribosomal translation initiation and dominate basal cellular protein synthesis. As a central regulatory node of cellular stress responses, eIF2α phosphorylation suppresses global protein translation and reduces intracellular synthetic burden under endoplasmic reticulum stress, oxidative stress and nutrient deprivation, enabling cells to adapt to adverse conditions. Dysregulated eIF2α expression causes translational disorder and stress imbalance, contributing to tumor proliferation, neurodegeneration, metabolic disorders and inflammation.