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Anti-eIF2α (phospho Ser51) Rabbit mAb [59H24]

Catalog No.: A52111

Basic Information

Catalog No. (Cat.No.)	A52111
Host species	Rabbit
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,ELISA
Synonyms	eIF2α (phospho Ser51),p-eIF2α(Ser51),eIF2-alpha,eIF-2α,p-eIF2α(S51)

Product Information

Target	eIF2α (phospho Ser51)
Molecular Weight(Calculated)	36 kDa
Molecular Weight(Observed)	36 kDa
Isotype	IgG,Kappa
Conjugation	NA
Concentration	0.2 mg/ml
Clonality	Monoclonal
Clone No.	59H24
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	1:100-1:1000
IF	1:200-1:1000
ELISA	1:5000-1:20000

Target Information

Protein Name	eIF2α (phospho Ser51)
Gene Name	*EIF2S1*
Domain	NA
Background	Phospho-eIF2α (Ser51) is a critical functional modification site of eIF2α and a hallmark of stress-induced translational inhibition in cells. The Ser51 residue is specifically phosphorylated by stress kinases including PERK, GCN2, PKR and HRI in response to ER stress, oxidative stress, viral infection and amino acid deprivation. Ser51 phosphorylation markedly suppresses the translational initiation activity of the eIF2 complex, blocks global protein synthesis, and selectively activates the translation of stress-responsive genes to initiate cellular protective responses. Abnormal Ser51 phosphorylation serves as a key indicator of excessive ER stress and cellular stress damage. Sustained eIF2α phosphorylation induces cell apoptosis, metabolic disorders and inflammatory imbalance, extensively participating in the pathological progression of tumors, neurodegeneration and metabolic diseases.