eIF-2a(Phospho-Ser51) Rabbit mAb

Catalog No: #13338

Package Size: #13338-1 50ul #13338-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	eIF-2a(Phospho-Ser51) Rabbit mAb
Host Species	Recombinant Rabbit
Clonality	Monoclonal
Clone No.	SZ01-06
Isotype	IgG
Purification	ProA affinity purified
Applications	WB;ICC/IF;IHC
Species Reactivity	Human;Mouse;Rat
Immunogen Description	Synthetic phospho-peptide corresponding to residues surrounding Ser51 of human eIF-2a.
Conjugates	Unconjugated
Target Name	EIF2A
Other Names	EIF 2 alpha antibody EIF 2 antibody EIF 2A antibody EIF 2alpha antibody eIF-2-alpha antibody eIF-2A antibody EIF-2alpha antibody EIF2 alpha antibody EIF2 antibody EIF2A antibody EIF2S1 antibody Eukaryotic translation initiation factor 2 subunit 1 alpha 35kDa antibody Eukaryotic translation initiation factor 2 subunit 1 alpha antibody Eukaryotic translation initiation factor 2 subunit 1 antibody Eukaryotic translation initiation factor 2 subunit alpha antibody IF2A_HUMAN antibody
Accession No.	Swiss-Prot#:Q9BY44
Calculated MW	36 kDa
SDS-PAGE MW	38 kDa
Formulation	1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.
Storage	Store at -20°C

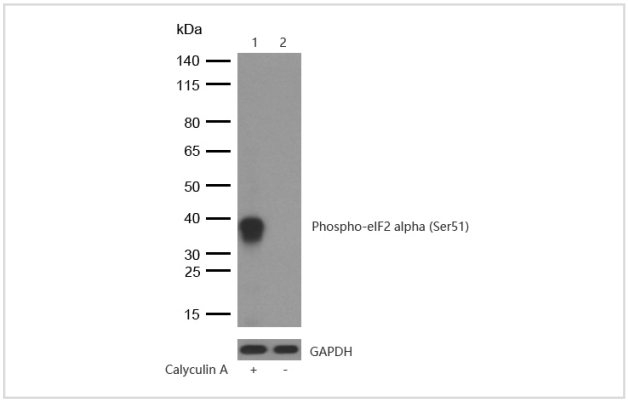
Application Details

WB: 1:500-1:2000

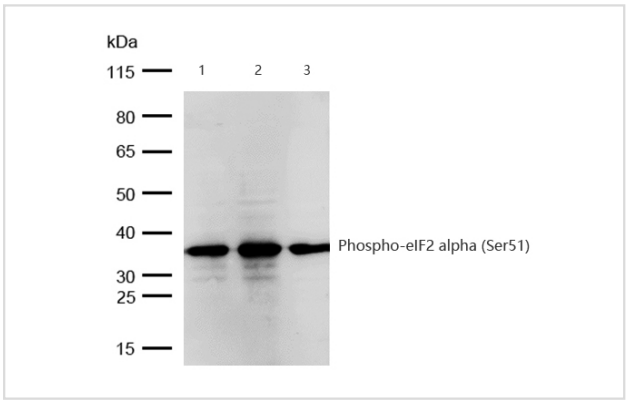
ICC/IF: 1:50-1:200

IHC: 1:50-1:200

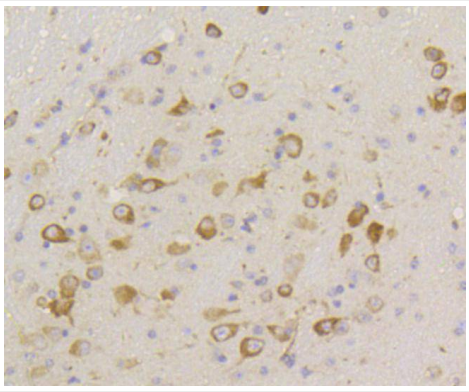
Images



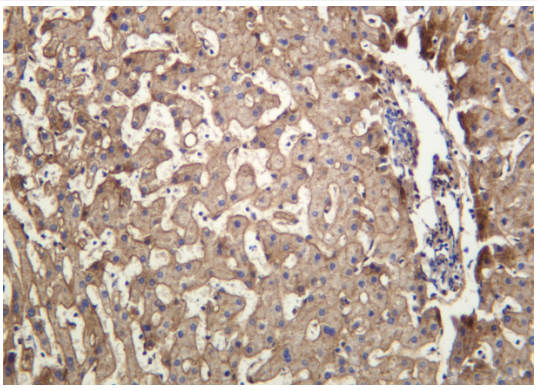
All lanes : eIF-2a(Phospho-S51) Rabbit mAb at 1/1k dilutionLane 1 : HeLa treated with 100nM Calyculin A for 30min whole cell lysatesLane 2 : Hela whole cell lysatesLysates/proteins at 20 µg per lane.SecondaryAll lanes : Goat Anti-Rabbit IgG H&L (HRP) at 1/20000 dilutionPredicted band size: 36 kDa Observed band size: 38 kDaExposure time: 6 seconds



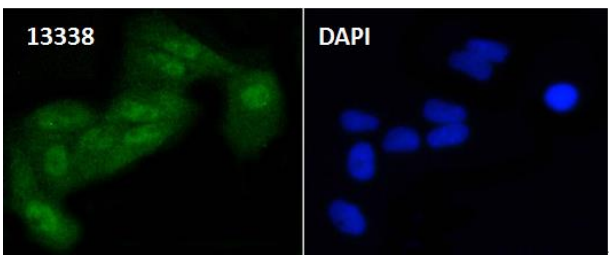
All lanes : eIF-2a(Phospho-S51)Rabbit mAb at 1/1k dilutionLane 1 : 3T3 whole cell lysatesLane 2 : PC12 whole cell lysatesLane 3 : C6 whole cell lysatesLysates/proteins at 20 µg per lane.SecondaryAll lanes : Goat Anti-Rabbit IgG H&L (HRP) at 1/20000 dilutionPredicted band size: 36 kDa Observed band size: 38 kDaExposure time: 5 seconds



Formalin-fixed;paraffin-embedded mouse brain tissue stained for eIF-2a (Phospho-S51) using 13338 at 1/100 dilution in immunohistochemical analysis.



Formalin-fixed;paraffin-embedded human liver tissue stained for eIF-2a (Phospho-S51) using 13338 at 1/100 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence eIF-2a (Phospho-S51) antibody (13338)
ICC/IF staining of eIF-2a (Phospho-S51) in Hela cells. Cells were fixed with 4% Paraformaldehyde permeabilized with 0.1% Triton X-100.
Samples were incubated with 13338 at a working dilution of 1/100. The secondary antibody was Alexa FluorB 488 goat anti rabbit;used at a dilution of 1/500.
Nuclei were counterstained with DAPI.

Background

Phosphorylation of the eukaryotic initiation factor 2 (eIF2) α 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. eIF2 promotes a new round of translation initiation by exchanging GDP for GTP, a reaction catalyzed by eIF2B. Kinases that are activated by viral infection (PKR), endoplasmic reticulum stress (PERK/PEK), amino acid deprivation (GCN2), or heme deficiency (HRI) can phosphorylate the α subunit of eIF2. This phosphorylation stabilizes the eIF2-GDP-eIF2B complex and inhibits the turnover of eIF2B. Induction of PKR by IFN-γ and TNF-α induces potent phosphorylation of eIF2α at Ser51.

References

1. Montalbano R et al. Endoplasmic reticulum stress plays a pivotal role in cell death mediated by the pan-deacetylase inhibitor panobinostat in human hepatocellular cancer cells. Transl Oncol 6:143-57 (2013).
2. Kanai R et al. Effect of ?34.5 deletions on oncolytic herpes simplex virus activity in brain tumors. J Virol 86:4420-31 (2012).

Published Papers

Jiang Yixuan, Wang Bin el at., Sensory neuron TRPV1-mediated macrophage polarization and immune response regulate dental implant osseointegration, Tissue & cell, (2025)

PMID:41297248

Note: This product is for in vitro research use only and is not intended for use in humans or animals.