

For Research Use Only

Phospho-EIF2S1 (Ser51) Recombinant monoclonal antibody

Catalog Number: 87179-2-RR

3 Publications



Basic Information

Catalog Number:

87179-2-RR

Size:

100ul, Concentration: 1000 µg/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_004094

GeneID (NCBI):

1965

UNIPROT ID:

P05198

Full Name:

eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa

Calculated MW:

36 kDa

Observed MW:

36 kDa

Purification Method:

Protein A purification

CloneNo.:

252275C9

Recommended Dilutions:

WB: 1:2000-1:10000

Applications

Tested Applications:

WB, ELISA

Cited Applications:

WB

Species Specificity:

human, mouse

Cited Species:

human, mouse

Positive Controls:

WB: Calyculin A treated PC-3 cells, Calyculin A treated NIH/3T3 cells

Background Information

EIF2S1 is one subunit of the translation initiation factor EIF2, which catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. 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. 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.

Notable Publications

Author	Pubmed ID	Journal	Application
Dazhuang Miao	42402577	J Nanobiotechnology	
Mingming Li	42122241	Cancers (Basel)	WB
Meng Nie	41622228	J Neuroinflammation	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

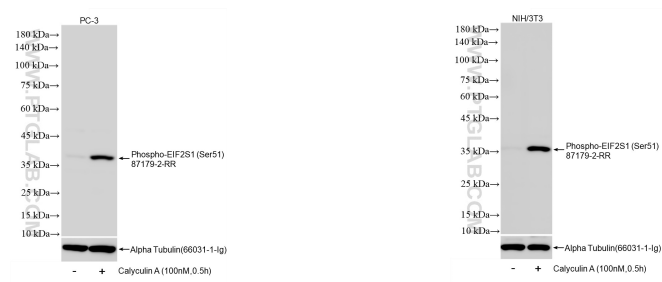
For technical support and original validation data for this product please contact:

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Selected Validation Data



Non-treated PC-3 cells and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 87179-2-RR (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as a loading control.

Non-treated NIH/3T3 cells and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 87179-2-RR (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Alpha Tubulin (66031-1-Ig) antibody as a loading control.