

For Research Use Only

# Phospho-EIF2S1 (Ser51) Polyclonal antibody

Catalog Number: 28740-1-AP

41 Publications



## Basic Information

Catalog Number:

28740-1-AP

Size:

100ul, Concentration: 450 ug/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:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:8000

## Applications

Tested Applications:

WB, ELISA

Cited Applications:

WB, IHC

Species Specificity:

Human, mouse, rat

Cited Species:

human, mouse, rat, pig, chicken

Positive Controls:

WB: Calyculin A treated PC-3 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- $\gamma$  and TNF- $\alpha$  induces potent phosphorylation of eIF2 $\alpha$  at Ser51

## Notable Publications

Author	Pubmed ID	Journal	Application
Yichao Du	34512864	Oxid Med Cell Longev	WB
Lei Chang	34647267	J Mol Neurosci	WB
Shuai Li	36450665	Cell Prolif	WB

## Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

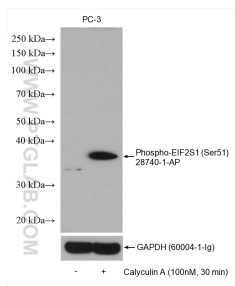
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## Selected Validation Data



Non-treated PC-3 and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 28740-1-AP (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:2000 incubated 4°C overnight. The membrane was stripped and re-blotted with GAPDH antibody as loading control.