

For Research Use Only

# CoraLite® Plus 488-conjugated Phospho-EIF2S1 (Ser51) Monoclonal antibody



Catalog Number: CL488-68023

1 Publications

## Basic Information

<b>Catalog Number:</b> CL488-68023	<b>GenBank Accession Number:</b> NM_004094	<b>Purification Method:</b> Protein G purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1965	<b>CloneNo.:</b> 1A4A11
<b>Source:</b> Mouse	<b>UNIPROT ID:</b> P05198	<b>Recommended Dilutions:</b> IF/ICC 1:50-1:500
<b>Isotype:</b> IgG1	<b>Full Name:</b> eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa	<b>Excitation/Emission maxima wavelengths:</b> 493 nm / 522 nm
	<b>Calculated MW:</b> 36 kDa	
	<b>Observed MW:</b> 36 kDa	

## Applications

<b>Tested Applications:</b> IF/ICC, FC (Intra)	<b>Positive Controls:</b> IF/ICC : Calyculin A treated HeLa cells,
<b>Cited Applications:</b> IF	
<b>Species Specificity:</b> human, mouse, rat	

## 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
Yonger Xue	38272900	Nat Commun	IF

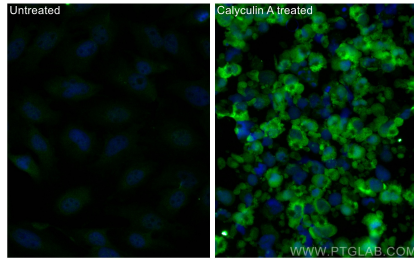
## Storage

**Storage:**  
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

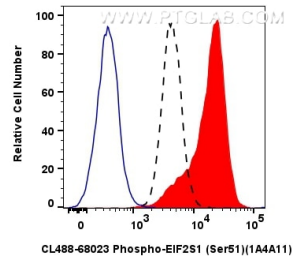
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## Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed Calyculin A treated HeLa cells using Coralite® Plus 488 Phospho-EIF2S1 (Ser51) antibody (CL488-68023, Clone: 1A4A11 ) at dilution of 1:200.



1x10<sup>6</sup> Calyculin A treated PC-3 cells were intracellularly stained with 0.13 ug Coralite® Plus 488-conjugated Phospho-EIF2S1 (Ser51) Monoclonal antibody (CL488-68023, Clone:1A4A11)(red), or 0.13 ug Coralite® Plus 488 Mouse IgG1 Isotype Control (MOPC-21) (CL488-65124, Clone: MOPC-21) (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH.