For Research Use Only

Phospho-EIF2S1 (Ser51) Monoclonal antibody, PBS Only (Detector)

Catalog Number:68023-1-PBS

proteintech®
Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
68023-1-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

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 G purification

CloneNo.:
1A4A11

Applications

Tested Applications:
WB, IF/ICC, FC (Intra), Cytometric bead array, Indirect ELISA

Species Specificity:
human, mouse, rat

Product Information

68023-1-PBS targets Phospho-EIF2S1 (Ser51) as part of a matched antibody pair:

MP50181-1: 68479-1-PBS capture and 68023-1-PBS detection (validated in Cytometric bead array)

Unconjugated mouse monoclonal antibody pair in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications.Antibody use should be optimized by the end user for each application and assay.

Background Information

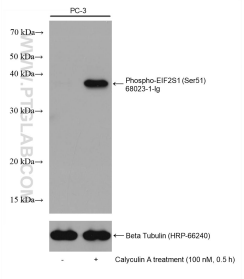
EIF2S1 is one subunit of the translation initiation factor EIF2, which catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S preinitiation 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.

Storage

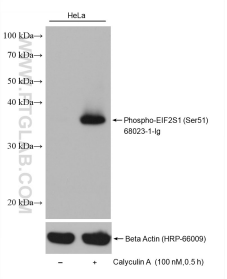
Storage:
Store at -80°C.
Storage Buffer:
PBS Only

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

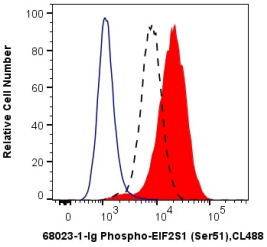
Selected Validation Data



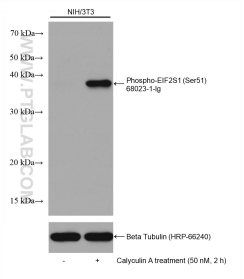
Non-treated and Calyculin A treated PC-3 cells were subjected to SDS PAGE followed by western blot with 68023-1-Ig (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin (HRP-66240) antibody as loading control. This data was developed using the same antibody clone with 68023-1-PBS in a different storage buffer formulation.



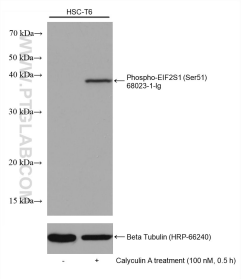
Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 68023-1-Ig (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Actin (HRP-66009) antibody as loading control. This data was developed using the same antibody clone with 68023-1-PBS in a different storage buffer formulation.



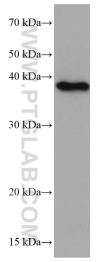
1X10^6 PC-3 cells untreated (dashed lines) or treated with Calyculin A (red) were intracellularly stained with 0.5 ug Anti-Human Phospho-EIF2S1 (Ser51) (68023-1-Ig, Clone:1A4A11) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000, or 0.5 ug Control Antibody (blue). Cells were fixed with 4% PFA and permeabilized with 90% MeOH. This data was developed using the same antibody clone with 68023-1-PBS in a



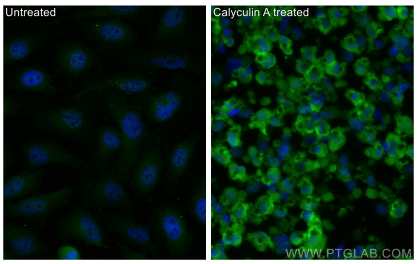
Non-treated and Calyculin A treated NIH/3T3 cells were subjected to SDS PAGE followed by western blot with 68023-1-Ig (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin (HRP-66240) antibody as loading control. This data was developed using the same antibody clone with 68023-1-PBS in a different storage buffer formulation.



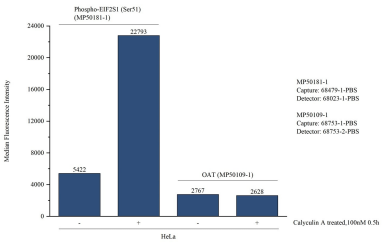
Non-treated and Calyculin A treated HSC-T6 cells were subjected to SDS PAGE followed by western blot with 68023-1-Ig (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with Beta Tubulin (HRP-66240) antibody as loading control. This data was developed using the same antibody clone with 68023-1-PBS in a different storage buffer formulation.



Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 68023-1-Ig (Phospho-EIF2S1 (Ser51) antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 68023-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed Calyculin A treated HeLa cells using Phospho-EIF2S1 (Ser51) antibody (68023-1-Ig, Clone: 1A4A11) at dilution of 1:800 and Multi-rAb CoraLite ® Plus 488-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (RGAM002). This data was developed using the same antibody clone with 68023-1-PBS in a different storage buffer formulation.



Cytometric bead array in cell lysate using MP50181-1, Phospho-EIF2S1 (Ser51) Monoclonal Matched Antibody Pair, PBS Only. Capture antibody: 68479-1-PBS. Detection antibody: 68023-1-PBS. Cell lysate: Non-treated HeLa and Calyculin A treated HeLa (30µg/well). Non-related target OAT Monoclonal Matched Antibody Pair (MP50109-1P) was served as control.