

# EIF2S1 Recombinant antibody, PBS Only

Catalog Number: **82936-1-PBS**

## Basic Information

<b>Catalog Number:</b> 82936-1-PBS	<b>GenBank Accession Number:</b> BC002513	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug , Concentration: 1mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 1965	<b>CloneNo.:</b> 230245A12
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P05198	
<b>Isotype:</b> IgG	<b>Full Name:</b> eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa	
<b>Immunogen Catalog Number:</b> AG1645	<b>Calculated MW:</b> 36 kDa	
	<b>Observed MW:</b> 36 kDa	

## Applications

**Tested Applications:**  
Indirect ELISA, IP, IF/ICC, IHC, WB

**Species Specificity:**  
rat, mouse, human

## 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. EIF2A (Gene ID: 83939) and EIF2S1 (Gene ID: 1965) share the EIF2A symbol/alias in common. EIF2S1 is the alpha subunit of the eIF2 translation initiation complex. Although both of these proteins function in binding initiator tRNA to the 40S ribosomal subunit, the EIF2A protein does so in a codon-dependent manner, whereas eIF2 complex requires GTP.

## Storage

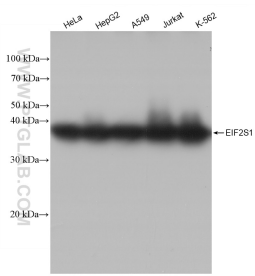
**Storage:**  
Store at -80°C.

**Storage Buffer:**  
PBS Only

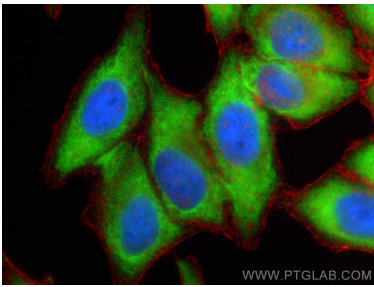
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

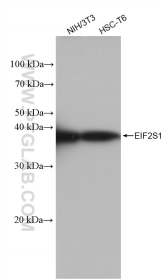
Selected Validation Data



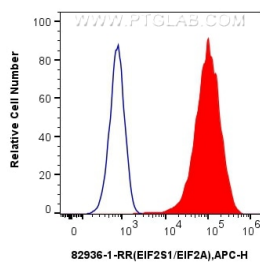
Various lysates were subjected to SDS PAGE followed by western blot with 82936-1-RR (EIF2S1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



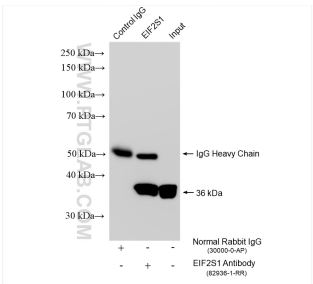
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using EIF2S1 antibody (82936-1-RR, Clone: 230245A12 ) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red). This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



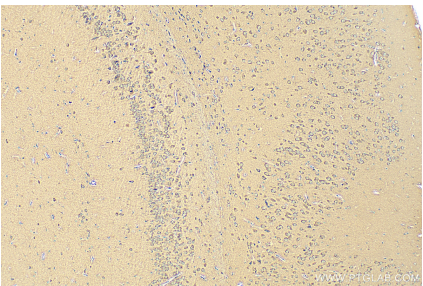
Various lysates were subjected to SDS PAGE followed by western blot with 82936-1-RR (EIF2S1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



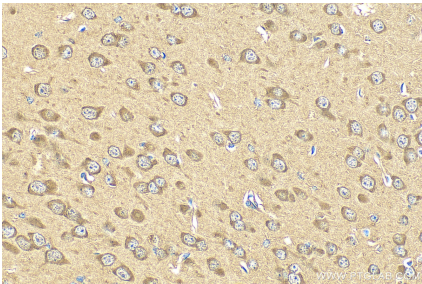
1x10<sup>6</sup> HeLa cells were intracellularly stained with 0.25 ug Anti-Human EIF2S1 (82936-1-RR, Clone:230245A12) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



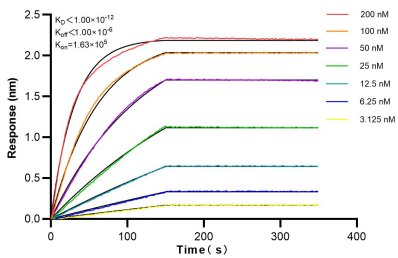
IP result of anti-EIF2S1 (IP:82936-1-RR, 4ug; Detection:82936-1-RR 1:3000) with HepG2 cells lysate 1470 ug. This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 82936-1-RR (EIF2S1 antibody) at dilution of 1:500 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 82936-1-RR (EIF2S1 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82936-1-PBS in a different storage buffer formulation.



Biolayer interferometry (BLI) kinetic assays of 82936-1-RR against Human EIF2S1 were performed. The affinity constant is below 1 pM.