

For Research Use Only

# EIF2S1 Polyclonal antibody

Catalog Number: 11170-1-AP

Featured Product

100 Publications



## Basic Information

### Catalog Number:

11170-1-AP

### Size:

150ul, Concentration: 300 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG1645

### GenBank Accession Number:

BC002513

### 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: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

IF/ICC: 1:50-1:500

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, chicken

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB:** MCF-7 cells, HepG2 cells, Jurkat cells, NIH/3T3 cells, HSC-T6 cells, PC-12 cells, mouse brain tissue, rat brain tissue

**IP:** HepG2 cells,

**IHC:** rat colon tissue,

**IF/ICC:** HepG2 cells,

**FC (Intra):** MCF-7 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. 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.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yu Sun	34562065	J Cell Mol Med	WB
Liguo Yang	32943607	Cell Death Dis	WB
Tongtong Liu	34530836	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

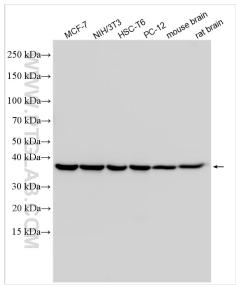
For technical support and original validation data for this product please contact:

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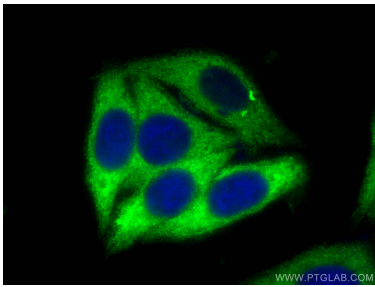
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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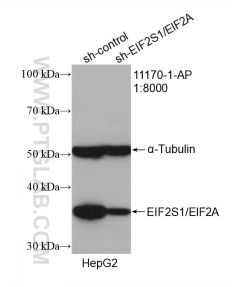
Selected Validation Data



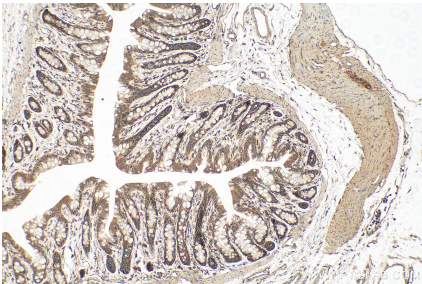
Various lysates were subjected to SDS PAGE followed by western blot with 11170-1-AP (EIF2S1 antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



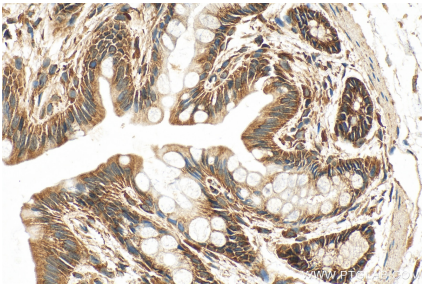
Immunofluorescent analysis of (-20°C Methanol) fixed HepG2 cells using EIF2S1/EIF2A antibody (11170-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



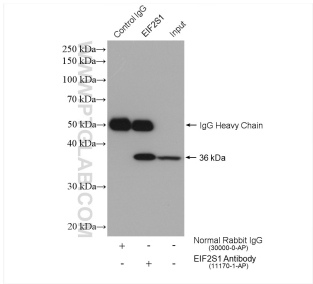
WB result of EIF2S1/EIF2A antibody (11170-1-AP; 1:8000; incubated at room temperature for 1.5 hours) with sh-Control and sh-EIF2S1/EIF2A transfected HepG2 cells.



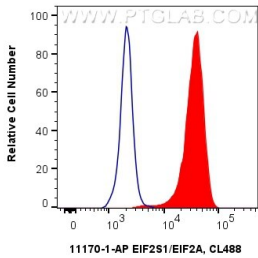
Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using 11170-1-AP (EIF2S1/EIF2A antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using 11170-1-AP (EIF2S1/EIF2A antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-EIF2S1/EIF2A (IP:11170-1-AP, 4ug; Detection:11170-1-AP 1:8000) with HepG2 cells lysate 1640 ug.



1X10<sup>6</sup> MCF-7 cells were intracellularly stained with 0.4 ug Anti-Human EIF2S1/EIF2A (11170-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-O-AP, Clone: ) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).