

# EIF2S1 Monoclonal Antibody (EIF2-alpha)

## Product Details

Size	100 µg
Species Reactivity	Human, Mouse, Non-human primate, Rat
Published Species	Rat, Yeast, Non-human primate, Human, Mouse
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	EIF2-alpha
Conjugate	Unconjugated
Immunogen	Recombinant human eIF-2-alpha.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A/G
Storage buffer	PBS, pH 7.4
Contains	0.1% sodium azide
Storage conditions	-20°C
RRID	AB_2536316

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500-1:1,000	17 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:10-1:50	-
Immunocytochemistry (ICC/IF)	1 µg/mL	1 Publication
Flow Cytometry (Flow)	3-5 µg/1x10 <sup>6</sup> cells	-
Immunoprecipitation (IP)	Assay-dependent	1 Publication
RNA Immunoprecipitation (RIP)	Assay-dependent	-

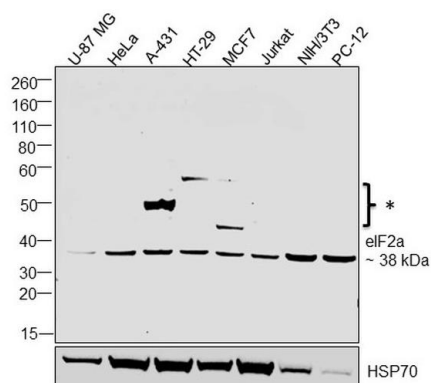
## Product Specific Information

This antibody recognizes the alpha subunit of eukaryotic translation initiation factor 2 (EIF2-alpha). Recommended positive control are human Jurkat, CEM, and HeLa cells; mouse 3T3L1 cells; and rat PC-12 cells.

## Product Images For EIF2S1 Monoclonal Antibody (EIF2-alpha)

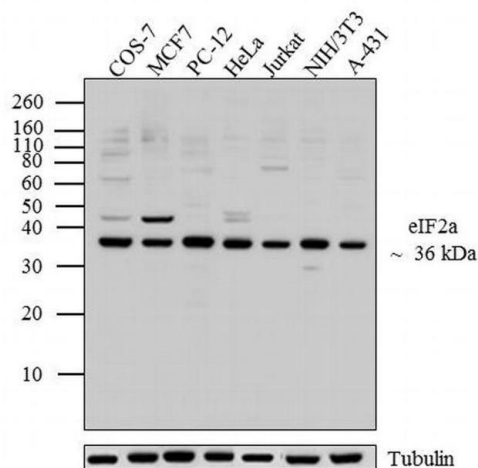
### EIF2S1 Antibody (AHO0802) in WB

Western Blot was performed using Anti-eIF2a Monoclonal Antibody (EIF2-alpha) (Product # AHO0802) and a 38 kDa band corresponding to Eukaryotic translation initiation factor 2 subunit 1 was observed across tested cell lines along with uncharacterised bands (\*) at ~50 and 60 kDa. Whole cell extracts (40 µg lysate) of U-87 MG (Lane 1), HeLa (Lane 2), A-431 (Lane 3), HT-29 (Lane 4), MCF7 (Lane 5), Jurkat (Lane 6), NIH/3T3 (Lane 7), PC-12 (Lane 8) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # LC2001) by iBlot® 2 Dry Blotting System (Product # IB21001). The Blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using SuperSignal™ West Dura Extended Duration Substrate (Product # 34076).



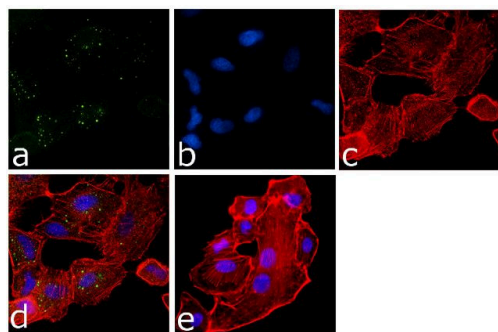
### EIF2S1 Antibody (AHO0802) in WB

Western blot analysis was performed on whole cell extracts (20 µg lysate) of COS-7 (Lane 1), MCF7 (Lane 2), PC-12 (Lane 3), HeLa (lane 4), Jurkat (lane 5), NIH/3T3 (lane 6) and A-431 (lane 7). The blots were probed with Anti-eIF2a Mouse Monoclonal Antibody (Product # AHO0802, 1:500-1:1000 dilution) and detected by chemiluminescence using Goat anti-Mouse IgG (H+L) Secondary Antibody, HRP conjugate (Product # 62-6520, 1:4000 dilution). A 36 kDa band corresponding to eIF2a was observed across cell lines tested. Known quantity of protein samples were electrophoresed using Novex® NuPAGE® 12 % Bis-Tris gel (Product # NP0342BOX), XCell SureLock™ Electrophoresis System (Product # EI0002) and Novex® Sharp Pre-Stained Protein Standard (Product # LC5800). Resolved proteins were then transferred onto a nitrocellulose membrane with iBlot® 2 Dry Blotting System (Product # IB21001). The membrane was probed with the relevant primary and secondary Antibody following blocking with 5 % skimmed milk. Chemiluminescent detection was performed using Pierce™ ECL Western Blotting Substrate (Product # 32106).



### EIF2S1 Antibody (AHO0802) in ICC/IF

Immunofluorescence analysis of eIF2a was done on 70% confluent log phase A549 cells. The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton™ X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with eIF2a Mouse Monoclonal Antibody at 1:250 dilution in 1% BSA and incubated for 3 hours at room temperature and then labeled with Goat anti-Mouse IgG (H+L) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A28175) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d is a merged image showing Cytoplasmic localization. Panel e is a no primary antibody control. The images were captured at 60X magnification.



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## Western Blot (17)

### Biomedicines

#### Salubrin Enhances Cancer Cell Death during Glucose Deprivation through the Upregulation of xCT and Mitochondrial Oxidative Stress.

"Published figure using EIF2S1 monoclonal antibody (Product # AHO0802) in Western Blot"

Authors: Chen MC,Hsu LL,Wang SF,Pan YL,Lo JF,Yeh TS,Tseng LM,Lee HC

Year  
2021

### MethodsX

#### A Rapid Extraction Method for mammalian cell cultures, suitable for quantitative immunoblotting analysis of proteins, including phosphorylated GCN2 and eIF2.

"Published figure using EIF2S1 monoclonal antibody (Product # AHO0802) in Western Blot"

Authors: Silva RC,Castilho BA,Sattlegger E

Year  
2020

Species  
Mouse

Dilution  
1:1,000

[View more WB references on thermofisher.com](#)

## Immunocytochemistry (1)

### Virology

#### VSV replication in neurons is inhibited by type I IFN at multiple stages of infection.

Authors: Trottier MD,Palian BM,Reiss CS

Year  
2005

Species  
Mouse

## Immunoprecipitation (1)

### Molecular and cellular biology

#### Fission Yeast Asc1 Stabilizes the Interaction between Eukaryotic Initiation Factor 3a and Rps0A/uS2 for Protein Synthesis.

"AHO0802 was used in Immunoprecipitation to find that Asc1 directly binds and stabilizes the interaction between small ribosomal protein Rps0A/uS2 and eukaryotic initiation factor 3a (eIF3a)."

Authors: Wang YT,Chien YC,Hsiao WY,Wang CC,Wang SW

Year  
2019

Species  
Yeast

## More applications with references on thermofisher.com

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