NeoBiotechnologies
Your Partner in Proteome Research

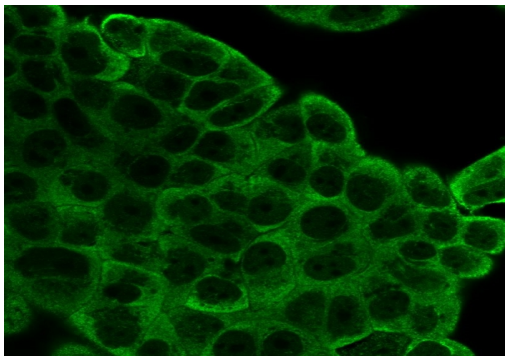
EIF2S1 / EIF-2 alpha (EIF2A)

Mouse Monoclonal Antibody [Clone PCRP-EIF2S1-1E2]

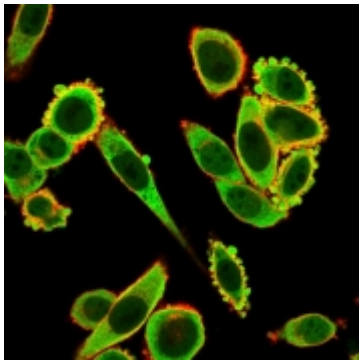
Catalog No	Format	Size	Price (USD)
1965-MSM2-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug	219.00
1965-MSM2-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug	499.00
1965-MSM2-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug	499.00

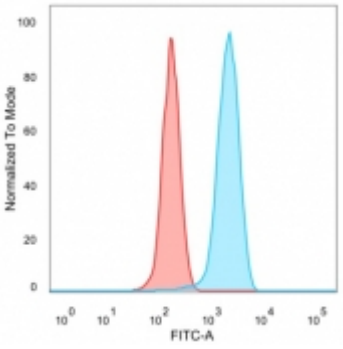
Human Entrez Gene ID	1965
Human SwissProt	P05198
Human Unigene	151777
Human Gene Symbol	EIF2S1
Human Chromosome Location	14q23.3
Synonyms	Eukaryotic translation initiation factor 2 subunit 1 alpha 35kDa (EIF2S1); EIF-2alpha, EIF2, EIF2A

Immunogen	Recombinant full-length human EIF2S1 protein
Host / Ig Isotype	Mouse / IgG1
Mol. Weight of Antigen	36kDa
Cellular Localization	Nucleus.
Species Reactivity	Human. Predicted to work in Rat and Zebrafish.
Positive Control	HeLa or MCF7 cells.



Immunofluorescence Analysis of PFA-fixed MCF-7 cells using EIF2S1 Mouse Monoclonal Antibody (PCRP-EIF2S1-1E2) followed by goat anti-mouse IgG-CF488 (green).





Specificity & Comments

The initiation of protein synthesis in eukaryotic cells is regulated by interactions between protein initiation factors and RNA molecules. The eukaryotic initiation complex is composed of three subunits, designated eIF2a, eIF2band eIF2g (eukaryotic translation initiation factor 2 a, band g, respectively), all of which work in concert to form a ternary complex with GTP and tRNA in the early stages of protein synthesis. eIF2a, also known as EIF2S1 or EIF2, is a 315 amino acid subunit of the eukaryotic initiation complex that functions to bind tRNA to the 40S ribosomal subunit (in a GTP-dependent manner), thereby initiating translation. In addition, the phosphorylation state of eIF2a controls the rate of tRNA translation. When eIF2a is not phosphorylated, translation occurs at a normal rate. However, upon phosphorylation by one of several kinases, eIF2a is stabilized, thus preventing the GDP/GTP exchange reaction and slowing translation.

Known Applications & Suggested Dilutions

Flow Cytometry (1-2ug/million cells)
Immunofluorescence (1-2ug/ml)
Western Blot (1-2ug/ml)
Optimal dilution for a specific application should be determined.

Key References

1. Blackshaw S., et al. Nature methods 15.5 (2018 May): 330-338.
2. Sambucetti, L.C., et al. 1986. Science 234: 1417-1419.

Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Limitations

This antibody is available for research use only and is not approved for use in diagnosis.

Warranty

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.