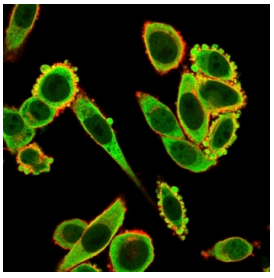
EIF2A Antibody [clone PCRP-EIF2S1-1E2] (V9190)

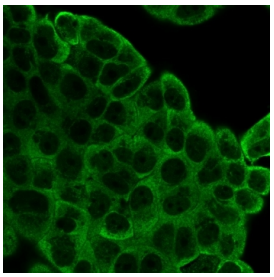
Catalog No.	Formulation	Size
V9190-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9190-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9190SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

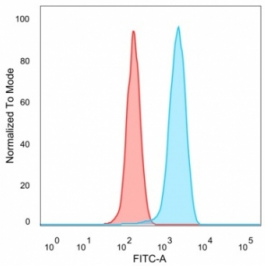
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	PCRP-EIF2S1-1E2
Purity	Protein A/G affinity
UniProt	P05198
Localization	Cytoplasm
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-2ug/ml Western Blot : 1-2ug/ml
Limitations	This EIF2A antibody is available for research use only.



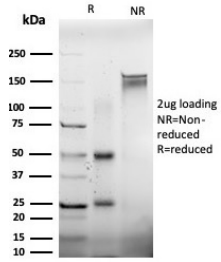
Immunofluorescent staining of PFA-fixed human HeLa cells using EIF2A antibody (green, clone PCRP-EIF2S1-1E2) and phalloidin (red).



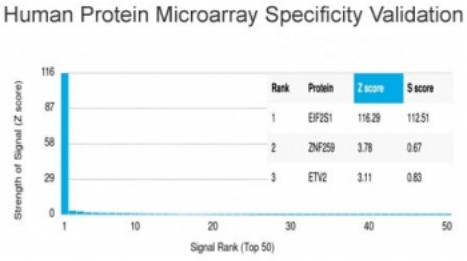
Immunofluorescent staining of PFA-fixed human MCF-7 cells using EIF2A antibody (green, clone PCRP-EIF2S1-1E2).



FACS staining of PFA-fixed human HeLa cells with EIF2A antibody (blue, clone PCRP-EIF2S1-1E2) and isotype control (red).



SDS-PAGE analysis of purified, BSA-free EIF2A antibody (PCRP-EIF2S1-1E2) as confirmation of integrity and purity.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using EIF2A antibody (clone PCRP-EIF2S1-1E2). These results demonstrate the foremost specificity of the PCRP-EIF2S1-1E2 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

Description

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, eIF2b and 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.

Application Notes

Optimal dilution of the EIF2A antibody should be determined by the researcher.

Immunogen

Recombinant full-length human EIF2S1 protein was used as the immunogen for the EIF2A antibody.

Storage

Aliquot the EIF2A antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.