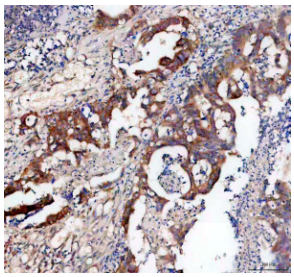
# EIF2S1 Antibody (R31138)

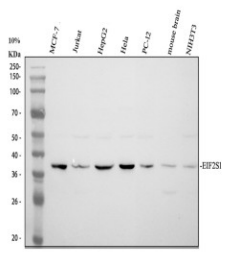
| Catalog No. | Formulation | Size |
|---|---|---|
| R31138 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Host** | Rabbit |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | P05198 |
| **Applications** | Western blot: 1-2ug/ml<br>Immunohistochemistry (FFPE): 2-5ug/ml |
| **Limitations** | This EIF2S1 antibody is available for research use only. |



EIF2S1 Antibody Human Colon Cancer IHC. IHC staining of FFPE human colon cancer tissue using EIF2S1 Antibody. Heat-induced epitope retrieval was performed in EDTA buffer (pH 8.0), followed by blocking with 10% goat serum. The tissue was incubated with the antibody at 2 ug/ml overnight at 4Â°C, followed by peroxidase-conjugated goat anti-rabbit IgG and DAB detection. Positive EIF2S1 staining is observed in tumor cells. This EIF2S1 Antibody demonstrates eIF2 alpha expression in human colon cancer tissue, supporting studies of translation control and cellular stress signaling.



EIF2S1 Antibody Human, Mouse and Rat WB. Western blot analysis of EIF2S1 in human MCF-7, Jurkat, HepG2 and HeLa cells, rat PC-12 cells, mouse brain tissue and mouse NIH3T3 cells using EIF2S1 Antibody. Samples (30 ug/lane) were separated by 10% SDS-PAGE under reducing conditions and transferred to nitrocellulose. Lane 1: MCF-7; Lane 2: Jurkat; Lane 3: HepG2; Lane 4: HeLa; Lane 5: PC-12; Lane 6: mouse brain; Lane 7: NIH3T3. The membrane was incubated with the antibody at 0.5 ug/ml overnight at 4Â°C, followed by HRP-conjugated secondary antibody and ECL detection. A specific band was detected at approximately 38 kDa, close to the predicted 36 kDa molecular weight of EIF2S1. This EIF2S1 Antibody detects eIF2 alpha across human, mouse and rat samples for studies of translation control and cellular stress signaling.

## Description

Eukaryotic Translation Initiation Factor 2, Subunit 1, also called EIF2-alpha or EIF2A, is a protein that in humans is encoded by the EIF2S1 gene. Hartz(2010) mapped the gene to chromosome 14q23.3 based on an alignment of the EIF2S1 sequence with the genomic sequence (GRCh37). Ernst et al.(1987) stated that protein synthesis is inhibited due to phosphorylation of EIF2S1 in hemin-deprived rabbit reticulocyte lysates. HeLa cells subjected to heat shock, serum deprivation, or interferon treatment followed by virus infection also show a correlation between EIF2S1 phosphorylation and translational repression. Jacob et al.(1989) found that the alpha-Pal transcription factor bound to two palindromic sites within the EIF2S1 promoter and was essential for transcription of the gene.

For additional information on eIF2 alpha and its roles in translation control and cellular stress signaling, see our EIF2S1 Antibody page.

## Application Notes

The stated application concentrations are suggested starting amounts. Titration of the EIF2S1 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

## Immunogen

An amino acid sequence from the middle region of human Eukaryotic Translation Initiation Factor 2 subunit 1 (KDEQLESLFQRTAWV) was used as the immunogen for this EIF2A antibody.

## Storage

After reconstitution, the EIF2S1 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.


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