

## Product datasheet for **CF501313**

### eIF2 alpha (EIF2S1) Mouse Monoclonal Antibody [Clone ID: OTI3H4]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3H4
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:1000~2000, IHC 1:50, IF 1:100, FLOW 1:100
Reactivity:	Human, Dog, Rat, Monkey, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human EIF2S1 (NP_004085) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	35.9 kDa
Gene Name:	eukaryotic translation initiation factor 2 subunit alpha
Database Link:	<a href="#">NP_004085</a> <a href="#">Entrez Gene 13665 Mouse</a> <a href="#">Entrez Gene 54318 Rat</a> <a href="#">Entrez Gene 480361 Dog</a> <a href="#">Entrez Gene 710150 Monkey</a> <a href="#">Entrez Gene 1965 Human</a> <a href="#">P05198</a>



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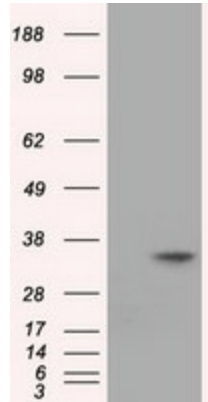
**Background:**

The translation initiation factor EIF2 catalyzes the first regulated step of protein synthesis initiation, promoting the binding of the initiator tRNA to 40S ribosomal subunits. Binding occurs as a ternary complex of methionyl-tRNA, EIF2, and GTP. EIF2 is composed of 3 nonidentical subunits, the 36-kD EIF2-alpha subunit (EIF2S1), the 38-kD EIF2-beta subunit (EIF2S2; MIM 603908), and the 52-kD EIF2-gamma subunit (EIF2S3; MIM 300161). The rate of formation of the ternary complex is modulated by the phosphorylation state of EIF2-alpha (Ernst et al., 1987 [PubMed 2948954]). [supplied by OMIM]

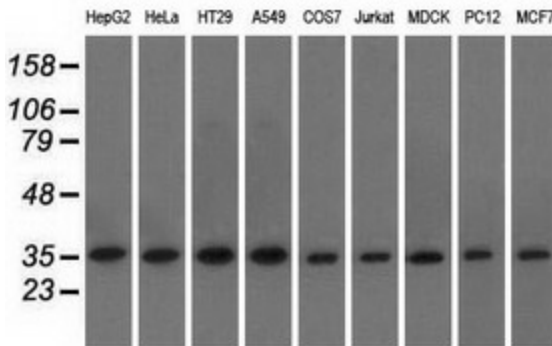
**Synonyms:**

EIF-2; EIF-2A; EIF-2alpha; EIF2; EIF2A

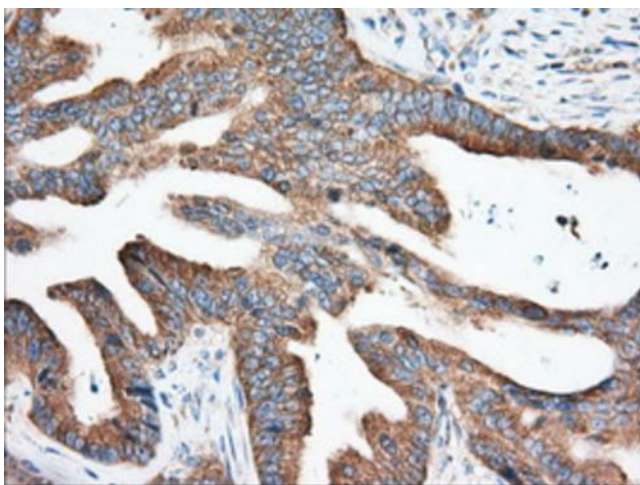
**Product images:**



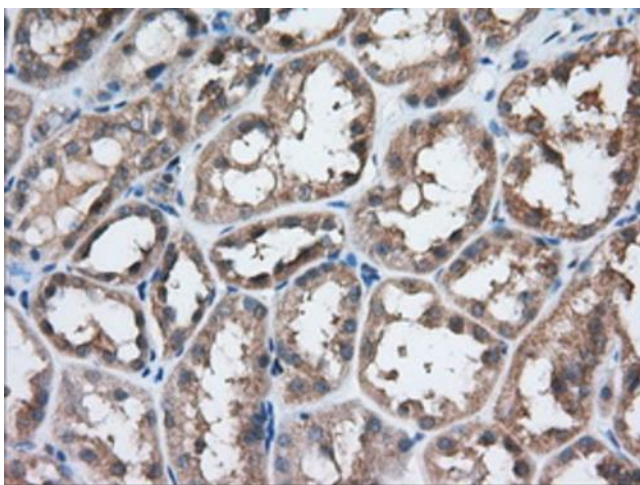
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY EIF2S1 ([RC200368], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-EIF2S1. Positive lysates [LY401321] (100ug) and [LC401321] (20ug) can be purchased separately from OriGene.



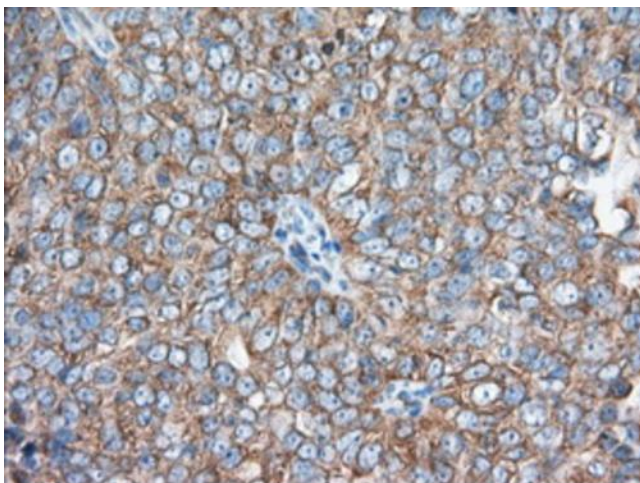
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-EIF2S1 monoclonal antibody.



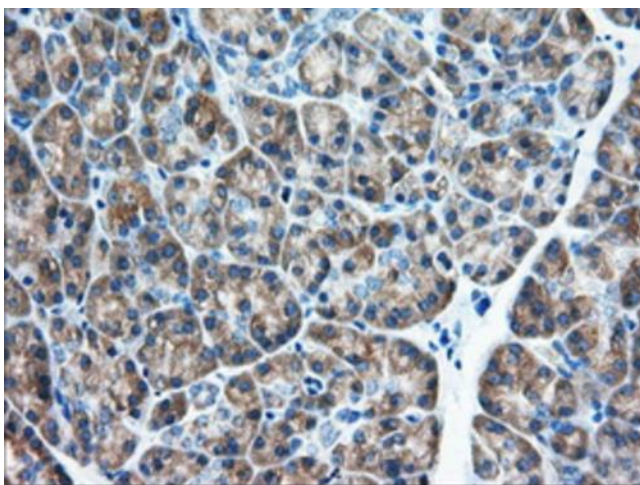
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human colon tissue using anti-EIF2S1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



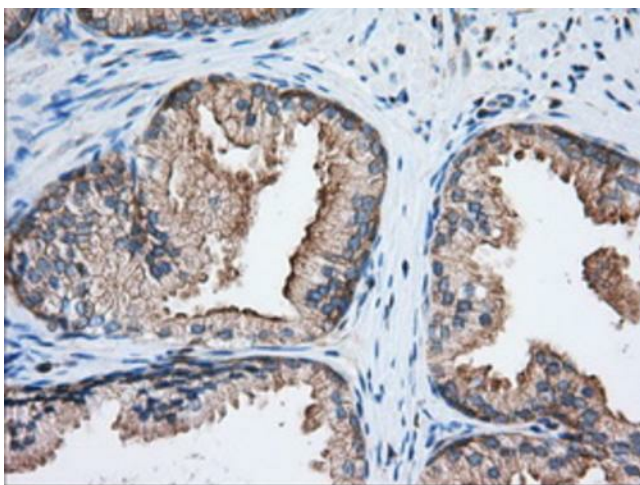
Immunohistochemical staining of paraffin-embedded Human Kidney tissue within the normal limits using anti-EIF2S1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



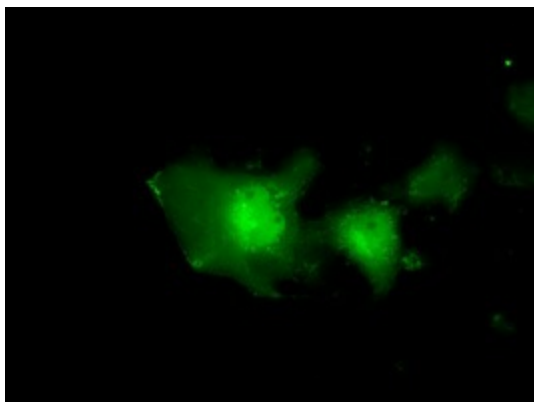
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-EIF2S1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



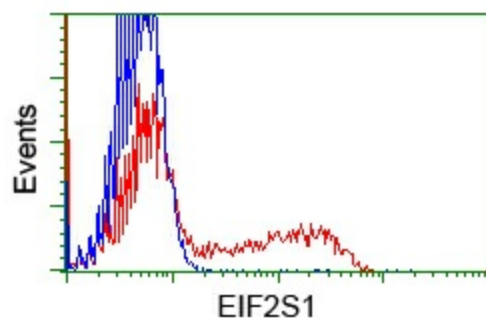
Immunohistochemical staining of paraffin-embedded Human pancreas tissue within the normal limits using anti-EIF2S1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



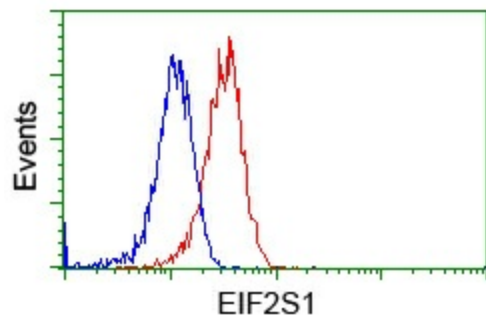
Immunohistochemical staining of paraffin-embedded Human prostate tissue within the normal limits using anti-EIF2S1 mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Anti-EIF2S1 mouse monoclonal antibody ([TA501313]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY EIF2S1 ([RC200368]).



HEK293T cells transfected with either [RC200368] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-EIF2S1 antibody ([TA501313]), and then analyzed by flow cytometry.



Flow cytometric Analysis of Jurkat cells, using anti-EIF2S1 antibody ([TA501313]), (Red), compared to a nonspecific negative control antibody (TA50011), (Blue).