

**DATASHEET**

**EIF2S1 Rabbit Polyclonal Antibody**

CAT. NO. APA06937

**KEY FEATURES**

|               |   |               |                     |
|---------------|---|---------------|---------------------|
| Target        | EIF2S1  | Source / Host | Rabbit              |
| Reactivity    | Human, Mouse, Rat, Bovine, Chicken, Pig, Zebrafish  | Clonality     | Polyclonal          |
| Applications  | WB, IHC, IF/ICC   | Conjugation   | Unconjugated        |
| Form / Buffer | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |               | Storage<br>at -20°C |

**BACKGROUND**

Member of the eIF2 complex that functions in the early steps of protein synthesis by forming a ternary complex with GTP and initiator tRNA . This complex binds to a 40S ribosomal subunit, followed by mRNA binding to form a 43S pre-initiation complex (43S PIC) . Junction of the 60S ribosomal subunit to form the 80S initiation complex is preceded by hydrolysis of the GTP bound to eIF2 and release of an eIF2-GDP binary complex . In order for eIF2 to recycle and catalyze another round of initiation, the GDP bound to eIF2 must exchange with GTP by way of a reaction catalyzed by eIF2B .

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

|        |                |
|--------|----------------|
| WB     | 1:500 - 1:1000 |
| IHC    | 1:50 - 1:100   |
| IF/ICC | 1:50 - 1:200   |

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

|                   |  |
|-------------------|--|
| Description       | Rabbit polyclonal antibody to EIF2S1   |
| Specificity       | Recognizes endogenous levels of EIF2S1 protein.  |
| Antibody Type     | Primary antibody   |
| Immunogen         | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human EIF2S1. The exact sequence is proprietary.                  |
| Purification      | The antibody was purified by immunogen affinity chromatography.  |
| Molecular Weight  | Predicted: 36 kD; Observed: 38 kD  |
| Form/Buffer       | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.  |
| Alternative Names | EIF2A; Eukaryotic translation initiation factor 2 subunit 1; Eukaryotic translation initiation factor 2 subunit alpha; eIF-2-alpha; eIF-2A; eIF-2alpha |
| Gene Symbol       | EIF2S1   |
| Entrez Gene       | 1965(Human); 13665(Mouse); 54318(Rat)  |
| SwissProt         | P05198(Human); Q6ZWX6(Mouse); P68101(Rat)  |

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

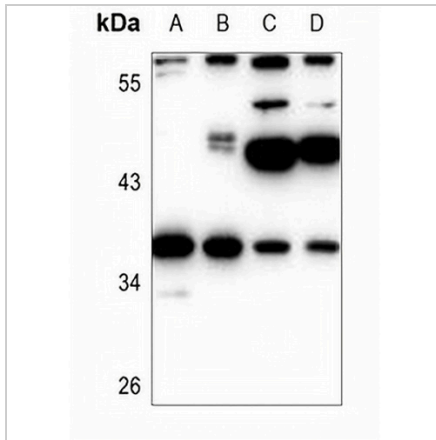
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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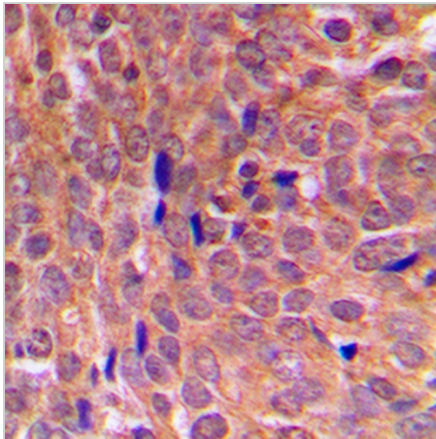
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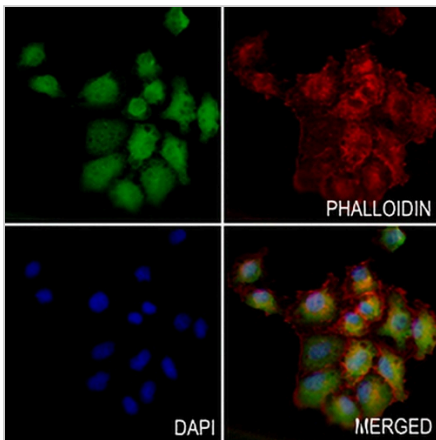
**DATA**



Western blot analysis of EIF2S1 expression in HEK293T (A), SGC7901 (B), rat heart (C), mouse heart (D) whole cell lysates. (Predicted band size: 36 kD; Observed band size: 38 kD)



Immunohistochemical analysis of EIF2S1 staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of EIF2S1 staining in H460 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.