

# Recombinant Human EIF2S1 cell lysate

**Cat. No.** EIF2S1-542HCL    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| <b>Species</b>        | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>    | 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, alpha (36 kD), beta (38 kD, MIM 603908), and gamma (52 kD, 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]). |
| <b>Size</b>           | 100 ul                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Storage Buffer</b> | 1X Sample Buffer (50 mM Tris-HCl, 2% SDS, 10% glycerol, 300 mM 2-mercaptoethanol, 0.01% Bromophenol blue)                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Applications</b>   | Western Blot;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

## GENE INFORMATION

|                        |                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | EIF2S1 eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa [ Homo sapiens ] |
| <b>Official Symbol</b> | EIF2S1                                                                                     |

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| <b>Synonyms</b>            | EIF2S1; eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa; EIF2, eukaryotic translation initiation factor 2, subunit 1 (alpha, 35kD ); eukaryotic translation initiation factor 2 subunit 1; EIF 2alpha; EIF2A; eIF-2-alpha; eukaryotic translation initiation factor 2 subunit alpha; EIF2; EIF-2; EIF-2A; EIF-2alpha;                                                                                                                                                                                                              |
| <b>Gene ID</b>             | <a href="#">1965</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>mRNA Refseq</b>         | <a href="#">NM_004094</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Protein Refseq</b>      | <a href="#">NP_004085</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>MIM</b>                 | <a href="#">603907</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>UniProt ID</b>          | <a href="#">P05198</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Chromosome Location</b> | 14q21.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Pathway</b>             | Activation of the mRNA upon binding of the cap-binding complex and eIFs, and subsequent binding to 43S, organism-specific biosystem; Cap-dependent Translation Initiation, organism-specific biosystem; Diabetes pathways, organism-specific biosystem; Disease, organism-specific biosystem; Eukaryotic Translation Initiation, organism-specific biosystem; Formation of the ternary complex, and subsequently, the 43S complex, organism-specific biosystem; GTP hydrolysis and joining of the 60S ribosomal subunit, organism-specific biosystem; |
| <b>Function</b>            | RNA binding; protein binding; ribosome binding; translation initiation factor activity;                                                                                                                                                                                                                                                                                                                                                                                                                                                               |