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California Bioscience

Product Datasheet

Product Name	Eukaryotic Initiation Factor 2-alpha Human Recombinant
Cata No	CB500865
Source	*Baculovirus, SF9 Insect Cells*
Synonyms	Eukaryotic translation initiation factor 2 subunit 1, Eukaryotic translation initiation factor 2 subunit alpha, eIF-2-alpha, EIF-2alpha, EIF-2A, EIF2, EIF-2, EIF2A, EIF-2A.

Description

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).
Eukaryotic Initiation Factor 2-alpha Human Recombinant produced in SF9 is a non-glycosylated, polypeptide chain having a molecular mass of 36 kDa.
EIF2-a is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

Recombinant human eIF2-α is phosphorylatable *in vitro*, using either immunoprecipitated active PKR or extracts from IFN-γ stimulated HEK 293 cells. This phosphorylation can be monitored by Western blot analysis using phosphorylation site specific antibody directed to eIF2-α [pS51] in conjunction with chemiluminescence detection methods.
Please note: Kinase activity may vary depending on the substrate and reaction conditions.

Formulation

EIF2-a is supplied as lyophilized freeze dry powder without additives.