

eIF3K Protein, Human (sf9, His-GST)

Cat. No.:	HY-P76901
Synonyms:	Eukaryotic translation initiation factor 3 subunit K; PLAC-24; eIF-3 p25; EIF3S12
Species:	Human
Source:	Sf9 insect cells
Accession:	Q9UBQ5 (A2-Q218)
Gene ID:	27335
Molecular Weight:	Approximately 47 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution of 20 mM Tris, 500 mM NaCl, 3 mM DTT, pH 7.4, 10% Glycerol. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>eIF3K protein is an integral component of the eukaryotic translation initiation factor 3 (eIF-3) complex, a crucial assembly required for various steps in protein synthesis initiation. This complex associates with the 40S ribosome, facilitating the recruitment of essential factors to form the 43S pre-initiation complex (43S PIC). eIF-3K within the eIF-3 complex stimulates mRNA recruitment to the 43S PIC and assists in scanning the mRNA for AUG recognition. Furthermore, the eIF-3 complex plays a pivotal role in disassembling and recycling post-termination ribosomal complexes, preventing premature joining of the 40S and 60S ribosomal subunits before initiation. Notably, eIF-3K contributes to the translation initiation of specific mRNAs involved in cell proliferation, including those related to cell cycling, differentiation, and apoptosis. Through different modes of RNA stem-loop binding, eIF-3K can exert either translational activation or repression. The eIF-3 complex, to which eIF-3K belongs, comprises 13 subunits and is organized into three stable modules (A, B, and C), with eIF-3K situated in module C. Interactions with other subunits, such as EIF3J and CCND3, highlight the intricate regulatory network in which eIF3K is involved, providing further insights into its multifaceted role in translation initiation and cellular processes.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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