EEF1E1 Protein, Human (His)

Cat. No.:	HY-P76314
Synonyms:	Eukaryotic translation elongation factor 1 epsilon-1; AIMP3; P18
Species:	Human
Source:	E. coli
Accession:	O43324 (M1-H174)
Gene ID:	9521
Molecular Weight:	Approximately 22 kDa

PROPERTIES

AA Sequence	MAAAAELSLL ELVKQANKEY LIHTLLKDLN SLTVQEKEKY LTNSH KYSAQGERQI LGSTAEEKAI YLEDKVYLTG NVSRWFCHIQ PVLQTNNGPS VQQWLEYRVT YNFTLADILL HYPGIRQHLS EKSLGLSKGN LTGLTTIAAH QVDGHSSKND YYGLHRFIVD SVVFIKNRLY
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 10% Glycerol, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
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	EEF1E1, a positive modulator of the ATM response to DNA damage, is a crucial component of a multisubunit complex that orchestrates tRNA ligases for Arg (RARS1), Asp (DARS1), Gln (QARS1), Ile (IARS1), Leu (LARS1), Lys (KARS1), Met (MARS1), and the bifunctional ligase for Glu and Pro (EPRS1), along with the auxiliary subunits AIMP1/p43, AIMP2/p38, and EEF1E1/p18. It forms a linear complex containing MARS1, EEF1E1, EPRS1, and AIMP2 at its core. EEF1E1 exhibits simultaneous interaction with MARS1 and EPRS1, highlighting its integral role in the multisubunit complex. Additionally, EEF1E1 interacts with ATM and ATR. The interaction with ATM, independent of TP53, is induced by DNA damage resulting from genotoxic stress or cell growth, while the interaction with ATR is heightened in response to UV irradiation. This intricate network underscores

	EEF1E1's significance in coordinating DNA damage response mechanisms.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA