

Screening Libraries

Proteins

Product Data Sheet

ECSIT Protein, Human (His)

Cat. No.: HY-P76311

Synonyms: Evolutionarily conserved signaling intermediate in Toll pathway, mitochondrial; Protein SITPEC;

Human Species: Source: E. coli

Accession: Q9BQ95-1 (Q246-S431)

Gene ID: 51295

Molecular Weight: Approximately 25 kDa.

PROPERTIES

ΛΛ	Sac	iuen	-
AA	Sec	ıueı	ıce

QVPLPKDSTG AADPPQPHIV GIQSPDQQAA LARHNPARPV FVEGPFSLWL RNKCVYYHIL RADLLPPEER EVEETPEEWN LYYPMQLDLE YVRSGWDNYE FDINEVEEGP VFAMCMAGAH DQATMAKWIQ QIPVVFRLAG STRELQTSSA GLQETNPTLA

GLEEPPLPED HQEEDDNLQR QQQGQS

Appearance

Lyophilized powder

Formulation

Lyophilized from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 8.0.

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 ddH₂O. 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

ECSIT protein functions as an adapter protein in various signaling pathways, including Toll-like receptors (TLRs), interleukin-1 (IL-1) pathways, and innate antiviral induction signaling. It plays a pivotal role in activating NF-kappa-B by forming a signal complex with TRAF6 and TAK1/MAP3K7, ultimately leading to the activation of TAK1/MAP3K7 and subsequent IKK activation. Upon ubiquitination, ECSIT interacts with dissociated RELA and NFKB1 proteins, translocating to the nucleus and inducing NF-kappa-B-dependent gene expression. In the context of the innate antiviral immune response, ECSIT bridges pattern recognition receptors RIGI and MDA5/IFIT1 to the MAVS complex at the mitochondrion. Additionally, ECSIT promotes the proteolytic activation of MAP3K1, participates in the BMP signaling pathway, and is essential for normal

embryonic development. Furthermore, as part of the MCIA complex, ECSIT contributes to the assembly of mitochondrial complex I.

Caution: Product has not been fully validated for medical applications. For research use only.

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