

Recombinant Human YARS, His-tagged

Cat. No. YARS-31446TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 3-528 of Human Tyrosyl tRNA synthetase with an N-terminal His Tag, approximately 62kDa
Species	Human
Source	E.coli
ProteinLength	3-528 a.a.
Description	Aminoacyl-tRNA synthetases catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. Tyrosyl-tRNA synthetase belongs to the class I tRNA synthetase family. Cytokine activities have also been observed for the human tyrosyl-tRNA synthetase, after it is split into two parts, an N-terminal fragment that harbors the catalytic site and a C-terminal fragment found only in the mammalian enzyme. The N-terminal fragment is an interleukin-8-like cytokine, whereas the released C-terminal fragment is an EMAP II-like cytokine.
Conjugation	HIS
Form	Lyophilised:reconstitution with 135 µl distilled water.
Storage buffer	Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium hydrogen phosphate, 10mM Sodium chloride, pH 4.5

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Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	DAPSPEEKLHLITRNLQEVLGEEKLKEILKERELKIYWGT ATTGKPHVAYFVPMSKIA DFLKAGCEVTILFADLHAYL DNMKAPWELLELRVSYENVIKAMLESIGVPLEKLKFI KGTDYQLSKEYTLDVYRLSSVVTQHDSKKAGAEVVKQVEH PLLSGLLYPGLQALDE EYLKVDAQFGGIDQRKIFTFAE KYLPALGYSKRVHLMNPMVPGLTGSKMSSSEEEES KIDL LDRKEDVKKKLKKAFCPEPGNVENNGVLSFIKHVLFPLKSEFVILRDEKWGGNK TYTAYVDLEKDFAAEVWHPGDLKNS VEVALNKLLDPIREKFNTPALKKLASAAYPDP SKQKPM AKGPAKNSEPEEVIPSRLDIRVGKIITVEKHPDADSLY VEKIDVGAEAPRT VVSGLVQFVPKEELQDRLVVVLCNLKP QKMRGVESQGMLLCASIEGINRQVEPLDP PAGSAPGEH VFKGYEKGQPDEELKPKKKVFEKLQADFKISEECIAQ WKQTNFMT KLGSISCKSLKGGNIS
Sequence Similarities	Belongs to the class-I aminoacyl-tRNA synthetase family.Contains 1 tRNA-binding domain.

GENE INFORMATION

Gene Name	YARS tyrosyl-tRNA synthetase [Homo sapiens]
Official Symbol	YARS
Synonyms	YARS; tyrosyl-tRNA synthetase; tyrosyl-tRNA synthetase, cytoplasmic; tyrosine tRNA ligase 1; cytoplasmic; tyrRS; YRS; YTS;
Gene ID	8565
mRNA Refseq	NM_003680
Protein Refseq	NP_003671

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MIM	603623
Uniprot ID	P54577
Chromosome Location	1p35.1
Pathway	Aminoacyl-tRNA biosynthesis, organism-specific biosystem; Aminoacyl-tRNA biosynthesis, conserved biosystem; Aminoacyl-tRNA biosynthesis, eukaryotes, organism-specific biosystem; Aminoacyl-tRNA biosynthesis, eukaryotes, conserved biosystem; Cytosolic tRNA aminoacylation, organism-specific biosystem;
Function	ATP binding; interleukin-8 receptor binding; ligase activity; nucleotide binding; signal transducer activity;

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