

Recombinant Human YARS, His-tagged

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

SPECIFICATION

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| 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: None Constituents: 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 DNMKAPWELLELRVSYENVIKAMLESIGVPLEKLF KGTDYQLSKEYTLDVYRLSSVVTQHDSKKAGAEVVKQVEH PLLSGLLYPGLQALDE EYLKVDAAQFGGIDQRKIFTFAE KYLPALGYSKRVHLMNPMVPGLTGSKMSSEES KIDL LDRKEDVKKKLLKAFCEPGNVENNGVLSFIKHVLFPLKSEFVILRDEKWGGNK TYTAYVDLEKDFAAEVVHPGDLKNS VEVALNKLLDPIREKFNTPALKKLASAAYPDP SKQKPM AKGPAKNSEPEEVIPSRLDIRVGGKIITVEKHPDADSLY VEKIDVGEAEPRT VVSGLVQFVPKEELQDRLVVVLCNLKP QKMRGVESQGMLLCASIEGINRQVEPLDP PAGSAPGEH VFKGYEKGPDEELPKKKVFEKLQADFKISEECIAQ WKQTNFMT KLGSIKSLKGGNIS |
| Sequence Similarities | Belongs to the class-I aminoacyl-tRNA synthetase family. Contains 1 tRNA-binding domain. |

GENE INFORMATION

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| 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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