

Recombinant Human AARS, GST-tagged

Cat. No. AARS-9196H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human AARS protein, fused to GST-tag, was expressed in E.coli and purified by GST-sepharose.
Species	Human
Source	E.coli
ProteinLength	1-350a.a.
Description	The human alanyl-tRNA synthetase (AARS) belongs to a family of tRNA synthases, of the class II enzymes. Class II tRNA synthases evolved early in evolution and are highly conserved. This is reflected by the fact that 498 of the 968-residue polypeptide human AARS shares 41% identity with the E.coli protein. tRNA synthases are the enzymes that interpret the RNA code and attach specific amino acids to the tRNAs that contain the cognate trinucleotide anticodons. They consist of a catalytic domain which interacts with the amino acid acceptor-T psi C helix of the tRNA, and a second domain which interacts with the rest of the tRNA structure.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 100mM GSH and 1% Triton X-100, 15% glycerol.

GENE INFORMATION

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Gene Name	AARS alanyl-tRNA synthetase [Homo sapiens]
Official Symbol	AARS
Synonyms	AARS; alanyl-tRNA synthetase; alanine--tRNA ligase, cytoplasmic; alanine tRNA ligase 1; cytoplasmic; alaRS; renal carcinoma antigen NY-REN-42; alanine tRNA ligase 1, cytoplasmic; alanyl-tRNA synthetase, cytoplasmic; CMT2N;
Gene ID	16
mRNA Refseq	NM_001605
Protein Refseq	NP_001596
MIM	601065
UniProt ID	P49588
Chromosome Location	16q22
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; Gene Expression, organism-specific biosystem; tRNA Aminoacylation, organism-specific biosystem;
Function	ATP binding; alanine-tRNA ligase activity; amino acid binding; aminoacyl-tRNA editing activity; ligase activity; metal ion binding; nucleotide binding; tRNA binding;

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