

Recombinant Human Alanyl-tRNA Synthetase, His-tagged

Cat. No. AARS-51H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Alanyl-tRNA synthetase produced in Sf9 is a glycosylated, polypeptide chain having a molecular mass of 107,598 Dalton. PL-12 is expressed with a -6x His tag and purified by proprietary chromatographic techniques.
Species	Human
Source	Sf9 Cells
Description	Alanyl-tRNA synthetase is a member of the aminoacyl-tRNA synthetase family, key enzymes of protein biosynthesis which charge tRNA molecules with the respective amino acids. This 108 kDa protein is an autoantigen recognized by PL-12 antibodies which occur in a subset of patients with polymyositis and dermatomyositis. Preliminary data suggest that epitope spreading occurs in the autoimmune PL-12 response such that even antibodies to an isolated alanyl-tRNA molecule can develop.
Physical Appearance	Sterile Filtered clear solution.
Purity	Greater than 90% as determined by SDS-PAGE.
Formulation	PL-12 is supplied at a of 0.9 mg/ml in 16 mM HEPES buffer pH-8, 250 mM sodium chloride, and 20% glycerol.
Immunological Functions	1. Binds IgG-type human auto-antibodies. 2. Standard ELISA test (checker-board analysis of positive/negative sera panels immuno-dot test).

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Applications	Western-Blot with monoclonal anti-hexa-His-tag antibody & Polymyositis sera.
Coating Concentration	0.3-0.8 µg/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

GENE INFORMATION

Gene Name	AARS alanyl-tRNA synthetase [Homo sapiens]
Synonyms	AARS; alanyl-tRNA synthetase; alanine tRNA ligase 1, cytoplasmic; Alanyl-tRNA synthetase, cytoplasmic; Renal carcinoma antigen NY-REN-42; Alanine--tRNA ligase; AlaRS; EC 6.1.1.7
Gene ID	16
mRNA Refseq	NM_001605
Protein Refseq	NP_001596
MIM	601065
UniProt ID	P49588
Chromosome Location	16q22
Pathway	Aminoacyl-tRNA biosynthesis; Gene Expression

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Function

ATP binding; alanine-tRNA ligase activity; ligase activity; nucleic acid binding; tRNA binding

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