

Product Data Sheet

□ Cat # RP-391

Recombinant Human Alanyl t-RNA Synthetase

Size: □ 5 ug

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.

**Source:** *Sf9 insect cells*. Alanyl-tRNA synthetase Human Recombinant produced in SF9 is a glycosylated, polypeptide chain having a molecular mass of 107,598 Dalton. PL-12 is expressed with a -6xHis tag and purified by proprietary chromatographic techniques. PL-12 is supplied at a of 0.9mg/ml in 16mM HEPES buffer pH-8, 250mM 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).

**Applications and Suggested Dilutions:** 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. Greater than 90% as determined by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

**Storage and Stability:** 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. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

**Usage:** This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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