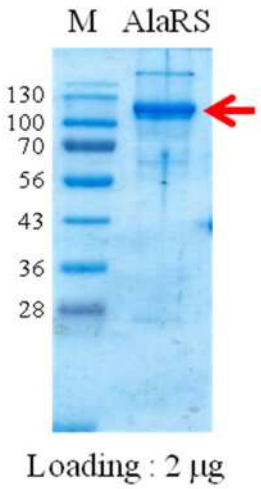
Product information

AlaRS (IB-03-0004)

Catalog No. : IB-03-0004
Product Name : Alanyl-tRNA synthetase Protein
Lot No. : PCP01-HN

Molecular Weight : 106kDa
Protein Construction : full length

Source : Human
Purification : Multi-step chromatography
Expression system : Recombinant human AlaRS expressed by *E.coli.*
Conjugate/Tag : N-term 6XHis tag



Background : Alanyl-tRNA synthetase catalyzes the ligation of alanine with alanyl-tRNA using ATP. Catalyzes the attachment of alanine to tRNA(Ala) in a two-step reaction: alanine is first activated by ATP to form Ala-AMP and then transferred to the acceptor end of tRNA(Ala). Also edits incorrectly charged tRNA(Ala) via its editing domain

Storage buffer : 1X PBS(pH7.2) 200mM NaCl 20% Glycerol

Storage instruction : Store at -70℃.

Purity : 89%

Quantity : 50*μg*

Concentration : 0.50mg/ml

Application : Western blot, ELISA, antibody production, protein array, activity assay.

Reference :

1. Alanyl-tRNA synthetase genes of Vanderwaltozyma polyspora arose from duplication of a dual-functional predecessor of mitochondrial origin. Chia-Pei Chang et al., *Nucleic Acids Research*, 1–9, 2011

2. Unique protein architecture of alanyl-tRNA synthetase for aminoacylation, editing and dimerization. Masahiro Naganuma et al., *PNAS,* Vol.106(21), 8489–8494, 2009

3. The structure of alanyl-tRNA synthetase with editing domain. Masaaki Sokabe et al., *PNAS Early Edition*, 2009
www.pnas.org_cgi_doi_10.1073_pnas.0904645106

4. Editing-defective tRNA synthetase causes protein misfolding and neurodegeneration. Lee J.W. et al., *Nature*, Vol.443, 50-55, 2006

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