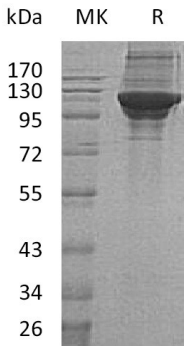
Product Name: Recombinant Human KARS (C-6His)
Catalog #: PHH1118

Summary

Name	Lysine--tRNA ligase/KARS
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/μg as determined by LAL test.
Construction	Recombinant Human Lysine-tRNA Ligase is produced by our Mammalian expression system and the target gene encoding Ala2-Val597 is expressed with a 6His tag at the C-terminus.
Accession #	Q15046
Host	Human Cells
Species	Human
Predicted Molecular Mass	69.1 KDa
Formulation	Supplied as a 0.2 μm filtered solution of 20mM Tris-HCl, 100mM NaCl, 1mM DTT, 20% Glycerol, pH 8.0.
Shipping	The product is shipped on dry ice/polar packs. Upon receipt, store it immediately at the temperature listed below.
Stability&Storage	Store at ≤-70°C, stable for 6 months after receipt. Store at ≤-70°C, stable for 3 months under sterile conditions after opening. Please minimize freeze-thaw cycles.
Reconstitution	

SDS-PAGE image



Background

Alternative Names	Lysine--tRNA Ligase; Lysyl-tRNA Synthetase; LysRS; KARS; KIAA0070
Background	Lysine-tRNA ligase, also known as Lysyl-tRNA synthetase, LysRS, KARS and

KIAA0070, belongs to the class-II aminoacyl-tRNA synthetase family. The N-terminal cytoplasmic domain (1-65) is a functional tRNA-binding domain, which is required for nuclear localization, is involved in the interaction with DARS, but has a repulsive role in the binding to EEF1A1. A central domain (208-259) is involved in homodimerization and is required for interaction with HIV-1 GAG and incorporation into virions. KARS catalyzes the specific attachment of an amino acid to its cognate tRNA in a two step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA. Defects in KARS are the cause of Charcot-Marie-Tooth disease recessive intermediate type B (CMTRIB).

Note

For Research Use Only , Not for Diagnostic Use.