

32-7679: Recombinant Human Lysine--tRNA Ligase/KARS (C-6His)

Gene : KARS
Gene ID : 3735
Uniprot ID : Q15046

Description

Source: Human Cells.
MW :69.1kD.

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. 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).

Product Info

Amount : 10 µg / 50 µg
Content : Supplied as a 0.2 µm filtered solution of 20mM TrisHCl,150mM NaCl,1mM DTT,20% glycerol,pH8.0.
Storage condition : Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.
Amino Acid : AAVQAAEVKVDGSEPKLSKNELKRRLKAEKKVAEKEAKQKELSEKQLSQATAAATNHTTNDNGVGPEEESVDPN
QYYKIRSQAIIHQLKVNAGEDPYPHKFHVDSLTDIFIQKYSHLQPGDHLTDITLKVAGRIHAKRASGGKLIFYDLRGE
GVKLQVMANSRNYKSEEEFIHNNKLRRGDIIGVQGNPGKTKKGELSIIPYEITLLSPCLHMLPHLHFGKDKETRY
RQRYLDLILNDFVRQKFIIRSKIITYIRSFLDELGFLEIETPMMNIIPGGAVAKPFITYHNELDMNLYMRIAPELYHKM
LVVGGIDRVYEIGRQFRNEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMSVSGMVKHITGSYKVITYHPDGPEG
QAYDVFDFTPPFRINMVEELEKALGMKLPETNLFETEETRKILDDICVAKAVECPPRRTTARLLDKLVGEFLEVTCI
NPTFICDHPQIMSPLAKWHRSEGLTERFELFVMKKEICNAYTELNDPMRQRQLFEEQAKAKAAGDDEAMFIDE
NFCTALEYGLPPTAGWGMGIDRVAMFLTDSNNIKEVLLFPAMKPEDKKENVATTDLTLESTTVGTSVVDHHHHH
H

Application Note

Endotoxin : Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.