10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

C14orf126 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP10553b

Specification

C14orf126 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q96FN9
Other Accession	NP_542395.1

C14orf126 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 112487

Other Names
Probable D-tyrosyl-tRNA(Tyr) deacylase 2, 31--, D-tyrosyl-tRNA deacylase 2, DTD2, C14orf126

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

C14orf126 Antibody (C-term) Blocking Peptide - Protein Information

Name DTD2

Synonyms C14orf126

Function
Deacylates mischarged D-aminoacyl-tRNAs (By similarity). Also deacylates mischarged glycyl-tRNA(Ala), protecting cells against glycine mischarging by AlaRS (By similarity). Probably acts by rejecting L-amino acids from its binding site rather than specific recognition of D-amino acids (By similarity). Catalyzes the hydrolysis of D-tyrosyl-tRNA(Tyr), has no activity on correctly charged L-tyrosyl- tRNA(Tyr) (By similarity). By recycling D-aminoacyl-tRNA to D-amino acids and free tRNA molecules, this enzyme counteracts the toxicity associated with the formation of D-aminoacyl-tRNA entities in vivo and helps enforce protein L-homochirality. In contrast to DTD1, deacylates L-Ala mischarged on tRNA(Thr)(G4.U69) by alanine-tRNA ligase AARS (PubMed:29410408). Can deacylate L-Ala due to a relaxed specificity for substrate chirality caused by the trans conformation of the Gly-Pro motif in the active site (PubMed:29410408). Also hydrolyzes correctly charged, achiral, glycyl-tRNA(Gly) in vitro, although in vivo EEF1A1/EF-Tu may protect cognate achiral glycyl-tRNA(Gly) from DTD2- mediated deacetylation (By similarity).

Cellular Location
Cytoplasm.

C14orf126 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

C14orf126 Antibody (C-term) Blocking Peptide - Images

C14orf126 Antibody (C-term) Blocking Peptide - Background

Hydrolyzes D-tyrosyl-tRNA(Tyr) into D-tyrosine and free tRNA(Tyr). Could be a defense mechanism against a harmful effect of D-tyrosine (Potential).

C14orf126 Antibody (C-term) Blocking Peptide - References

Gerhard, D.S., et al. Genome Res. 14 (10B), 2121-2127 (2004) :