

#### DTD2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10553b

#### Specification

## DTD2 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Antigen Region WB,E <u>O96FN9</u> <u>NP\_542395.1</u> Human, Mouse Rabbit Polyclonal Rabbit IgG 136-164

### DTD2 Antibody (C-term) - Additional Information

Gene ID 112487

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

Target/Specificity

This C14orf126 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 136-164 amino acids from the C-terminal region of human C14orf126.

**Dilution** WB~~1:1000 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

DTD2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

#### DTD2 Antibody (C-term) - 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.

### DTD2 Antibody (C-term) - Protocols

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

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

DTD2 Antibody (C-term) - Images



C14orf126 Antibody (C-term) (Cat. #AP10553b) western blot analysis in mouse lung tissue lysates (35ug/lane). This demonstrates the C14orf126 antibody detected the C14orf126 protein (arrow).

### DTD2 Antibody (C-term) - 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).



# DTD2 Antibody (C-term) - References

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