

## DTD1 Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P70087
<b>Synonyms:</b>	rHuD-aminoacyl-tRNA deacylase 1/DTD1, His; D-tyrosyl-tRNA(Tyr) deacylase 1; DNA-unwinding element-binding protein B; DUE-B; Histidyl-tRNA synthase-related; DTD1; C20orf88; DUEB; HARS2
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	Q8TEA8 (M1-P209)
<b>Gene ID:</b>	92675
<b>Molecular Weight:</b>	Approximately 30.0 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> M K A V V Q R V T R   A S V T V G G E Q I   S A I G R G I C V L   L G I S L E D T Q K E L E H M V R K I L   N L R V F E D E S G   K H W S K S V M D K   Q Y E I L C V S Q F T L Q C V L K G N K   P D F H L A M P T E   Q A E G F Y N S F L   E Q L R K T Y R P E L I K D G K F G A Y   M Q V H I Q N D G P   V T I E L E S P A P   G T A T S D P K Q L S K L E K Q Q Q R K   E K T R A K G P S E   S S K E R N T P R K   E D R S A S S G A E G D V S S E R E P           </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

<b>Background</b>	DTD1 protein is a possible ATPase involved in DNA replication, potentially playing a role in the loading of CDC45 onto pre-replication complexes. Additionally, it functions as an aminoacyl-tRNA editing enzyme, specifically deacylating mischarged D-aminoacyl-tRNAs and mischarged glycyl-tRNA(Ala). Notably, the enzyme employs tRNA-based catalysis, rejecting L-amino acids rather than detecting D-amino acids in the active site. This activity aids in the recycling of D-aminoacyl-tRNA to D-amino acids and free tRNA molecules, mitigating the toxicity associated with the formation of D-aminoacyl-tRNA entities in
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vivo and contributing to the maintenance of protein L-homochirality.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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