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**Product Data Sheet**


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Product Name: DTD1 Human  
 Cat. No.: GP21573  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	bA379J5.3; bA555E18.1; C20orf88; DUEB; HARS2; pqn-68; D-tyrosyl-tRNA(Tyr) deacylase 1; DNA-unwinding element-binding protein B.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSMKAVVQR VTRASVTVGG EQISAIGRGI CVLLGISLED TQKELEHMVR KILNLRVFED ESGKHWSKSVMDKQYEILCV SQFTLQCVLK GNKPDFHLAM PTEQAEGFYN SFLEQLRKTY RPELIKDGKF GAYMQVHIQN DGPVTIELES PAPGTATSDP KQLSKLEKQQ QRKEKTRAKG PSESSKERNT PRKEDRSASS GAEGDVSSER EP.		
Formulation	DTD1 protein solution (0.5mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.1M NaCl, 10% glycerol and 1mM DTT.		

**Introduction**

D-Tyrosyl-tRNA Deacylase 1 (DTD1) is a member of the DTD family. DTD1 hydrolyzes D-tyrosyl-tRNA(Tyr) into D-tyrosine and free tRNA(Tyr). DTD1 may be a defense mechanism against a damaging effect of D-tyrosine. DTD1 is an ATPase involved in DNA replication, which may facilitate loading of CDC45 onto pre-replication complexes. The DTD1 protein localizes to the DUE (DNA unwinding elements) of active replication origins. DTD1 is expressed in numerous adult and fetal tissues, with the highest levels in the testis, ovary, spleen and in the adult and fetal brain. DTD1 might be a risk factor for AIA (aspirin-intolerant asthma) by catalyzing the hydrolysis of D-tryptophan and interacting with the tyrosyl-tRNA synthetase (tyrRS) enzyme that promotes a pro-inflammatory phenotype.

**Stability**

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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HSA or BSA). Please avoid freeze thaw cycles.

### Background

DTD1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 232 amino acids (1-209a.a.) and having a molecular mass of 25.9kDa. DTD1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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