

## Product datasheet for **RG217586**

### TdT (DNNT) (NM\_004088) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TdT (DNNT) (NM_004088) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TdT
Synonyms:	TDT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG217586 representing NM\_004088  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGATCCACCACGAGCGTCCCCTTGGCCCTCGGAAGAAGAGACCCCGCAGACGGGTGCCTTGTATGG  
 CCTCCTCTCCTCAAGACATCAAATTTCAAGATTTGGTCGCTTTCATTTTGGAGAAGAAAATGGGAACCAC  
 CCGCAGAGCGTTCTCATGGAGCTGGCCCGCAGAAAAGGTTTCAGGGTTGAAAATGAGCTCAGTGATTCT  
 GTCACCCACATTGTAGCAGAGAACAACCGGGTTCGGATGTTCTGGAGTGGCTTCAAGCAGACAAAAGTAC  
 AAGTCAGCTCACAACCAGAGCTCCTCGATGTCTCTGGCTGATCGAATGCATAGGAGCAGGGAAACCGGT  
 GGAAATGACAGGAAAACACCAGCTTGTGTGAGAAGAGACTATTCAGATAGCACCAACCCAGGCCCCCGG  
 AAGACTCCACCAATTGCTGTACAAAAGATCTCCAGTATGCGTGTGAGAGAAGAACCACTTTAAACAAC  
 GTAACCAGATATTCACGGATGCCTTTGATATACTGGCTGAAAACGTGAGTTTAGAGAAAATGAAGACTC  
 CTGTGTGACATTTATGAGAGCAGCTTCTGTATTGAAATCTCTGCCATTCACAATCATCAGTATGAAGGAC  
 ACAGAAGGAATCCCTGCCTGGGTCCAAGGTGAAGGGTATCATAGAGGAGATTATTGAAGATGGAGAAA  
 GTTCTGAAGTTAAAGCTGTGTTAAATGATGAACGATATCAATCCTTCAAACCTCTTACTTCTGTATTTGG  
 AGTGGGGCTGAAGACTTCTGAGAAGTGGTTCAGGATGGGTTTCAGAACTCTGAGTAAAGTAAAGTTCGGAC  
 AAAAGCCTGAAATTTACACGAATGCAGAAAAGCAGGATTTCTGTATTATGAAGACCTTGTGAGCTGTGTGA  
 CCAGGGCAGAAGCAGAGGCCGTCAGTGTCTGGTTAAAGAGGCTGTCTGGGCATTTCTCCGGATGCTTT  
 CGTCACCATGACAGGAGGTTCCGGAGGGTAAAGAATGGGGCATGATGTAGATTTTTTAAATACCAGC  
 CCAGGATCAACAGAGGATGAAGAGCAACTTTTACAGAAAGTGAAGTAACTATGGGAAAAGAAGGGATTAC  
 TTTTATATTATGACCTTGTGGAGTCAACTTTGAAAAGCTCAGGTTGCCTAGCAGGAAGGTTGATGCTTT  
 GGATCATTTTCAAAGTGTCTTCTGATTTTCAAATTCCTCGTCAAAGAGTGGACAGTGACCAGTCCAGC  
 TGGCAGGAAGGAAAGACCTGGAAGGCCATCCGTGTGGATTTAGTTCTGTGCCCTACGAGCGTCTGCCT  
 TTGCCCTGTTGGGATGGACTGGCTCCCGCAGTTTGGAGAGACCTCCGCGCTATGCCACACATGAGCG  
 GAAGATGATTCTGGATAACCATGCTTTATATGACAAGACCAAGAGGATATTCCTCAAAGCAGAAAGTGAA  
 GAAGAAATTTTGCATCTGGGATTGGATTATATTGAACCGTGGGAAAGAAATGCC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG217586 representing NM\_004088  
 Red=Cloning site Green=Tags(s)

MDPPRASHLSPRKKRPRQTGALMASSPQDIKFQDLVVFIEKKMGTTTRRAFLMELARRKGFVRENELSDS  
 VTHIVAENNSGSDVLEWLQAQKVQVSSQPELLDVSWEICIGAGKPVEMTGKHQLVVRDYSDSTNPGPP  
 KTPPIAVQKISQYACQRRRTLLNCCNQIFDAFDILAENCEFRENEDSCVTFMRAASVLKSLPFTIISMKD  
 TEGIPCLGSKVKGIIIEEIIEDGESSEVKAVLNDERYQSFKLFTSVFGVGLKTSKWFMRMGFRTLSKVRSD  
 KSLKFRMQKAGFLYYEDLVSCVTRAEAEAVSVLVKEAVWAFLPDAFVTMTGGFRGKMGHDVDFLITS  
 PGSTEDEEQLLQKVMNLWEKKGLLLYYDLVESTFEKLRPSRKVDALDHFQKCFLIFKLRQRVDSQSS  
 WQEGKTKAIRVDLVLCYPYERRAFALLGWTGSRQFERDLRRYATHEKMLDNHALYDKTKRIFLKAES  
 EEIFAHLGLDYIEPWERNA

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_004088

**ORF Size:** 1527 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_004088.2](#)

**RefSeq Size:** 2071 bp

**RefSeq ORF:** 1530 bp

**Locus ID:** 1791

**UniProt ID:** [P04053](#)

**Cytogenetics:** 10q24.1

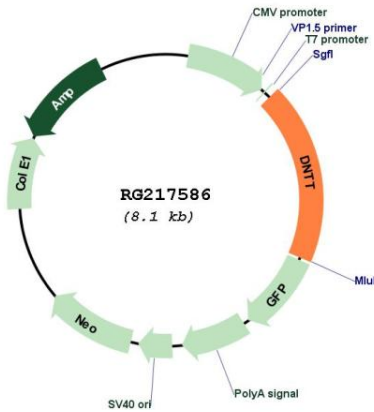
**Protein Pathways:**

Hematopoietic cell lineage, Non-homologous end-joining

**Gene Summary:**

This gene is a member of the DNA polymerase type-X family and encodes a template-independent DNA polymerase that catalyzes the addition of deoxynucleotides to the 3'-hydroxyl terminus of oligonucleotide primers. In vivo, the encoded protein is expressed in a restricted population of normal and malignant pre-B and pre-T lymphocytes during early differentiation, where it generates antigen receptor diversity by synthesizing non-germ line elements (N-regions) at the junctions of rearranged Ig heavy chain and T cell receptor gene segments. Alternatively spliced transcript variants encoding different isoforms of this gene have been described. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG217586