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Product datasheet for RC217586

TdT (DNTT) (NM_004088) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TdT (DNTT) (NM_004088) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TdT
Synonyms:	TDT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC217586 representing NM_004088
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATCCACCACGAGCGTCCCACTTGAGCCCTCGGAAGAAGAGACCCCGGCAGACGGGTGCCTTGATGG
CCTCCTCTCCTCAAGACATCAAATTTCAAGATTTGGTCGTCTTCATTTTGGAGAAGAAAATGGGAACCAC
CCGCAGAGCGTTCCTCATGGAGCTGGCCCGCAGGAAAGGGTTCAGGGTTGAAAATGAGCTCAGTGATTCT
GTCACCCACATTGTAGCAGAGAACAACTCGGGTTCGGATGTTCTGGAGTGGCTTCAAGCACAGAAAGTAC
AAGTCAGCTCACAACCAGAGCTCCTCGATGTCTCCTGGCTGATCGAATGCATAGGAGCAGGGAAACCGGT
GGAAATGACAGGAAAACACCAGCTTGTTGTGAGAAGAGACTATTCAGATAGCACCAACCCAGGCCCCCCG
AAGACTCCACCAATTGCTGTACAAAAGATCTCCCAGTATGCGTGTCAGAGAAGAACCACTTTAAACAACT
GTAACCAGATATTCACGGATGCCTTTGATATACTGGCTGAAAACTGTGAGTTTAGAGAAAATGAAGACTC
CTGTGTGACATTTATGAGAGCAGCTTCTGTATTGAAATCTCTGCCATTCACAATCATCAGTATGAAGGAC
ACAGAAGGAATTCCCTGCCTGGGGTCCAAGGTGAAGGGTATCATAGAGGAGATTATTGAAGATGGAGAAA
GTTCTGAAGTTAAAGCTGTGTTAAATGATGAACGATATCAATCCTTCAAACTCTTTACTTCTGTATTTGG
AGTGGGGCTGAAGACTTCTGAGAAGTGGTTCAGGATGGGTTTCAGAACTCTGAGTAAAGTAAGGTCGGAC
AAAAGCCTGAAATTTACACGAATGCAGAAAGCAGGATTTCTGTATTATGAAGACCTTGTCAGCTGTGTGA
CCAGGGCAGAAGCAGAGGCCGTCAGTGTGCTGGTTAAAGAGGCTGTCTGGGCATTTCTTCCGGATGCTTT
CGTCACCATGACAGGAGGGTTCCGGAGGGGTAAGAAGATGGGGCATGATGTAGATTTTTTAATTACCAGC
CCAGGATCAACAGAGGATGAAGAGCAACTTTTACAGAAAGTGATGAACTTATGGGAAAAGAAGGGATTAC
TTTTATATTATGACCTTGTGGAGTCAACATTTGAAAAGCTCAGGTTGCCTAGCAGGAAGGTTGATGCTTT
GGATCATTTTCAAAAGTGCTTTCTGATTTTCAAATTGCCTCGTCAAAGAGTGGACAGTGACCAGTCCAGC
TGGCAGGAAGGAAAGACCTGGAAGGCCATCCGTGTGGATTTAGTTCTGTGCCCCTACGAGCGTCGTGCCT
TTGCCCTGTTGGGATGGACTGGCTCCCGGCAGTTTGAGAGAGACCTCCGGCGCTATGCCACACATGAGCG
GAAGATGATTCTGGATAACCATGCTTTATATGACAAGACCAAGAGGATATTCCTCAAAGCAGAAAGTGAA
GAAGAAATTTTTGCGCATCTGGGATTGGATTATATTGAACCGTGGGAAAGAAATGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217586 representing NM_004088
Red=Cloning site Green=Tags(s)

MDPPRASHLSPRKKRPRQTGALMASSPQDIKFQDLVVFILEKKMGTTRRAFLMELARRKGFRVENELSDS
VTHIVAENNSGSDVLEWLQAQKVQVSSQPELLDVSWLIECIGAGKPVEMTGKHQLVVRRDYSDSTNPGPP
KTPPIAVQKISQYACQRRTTLNNCNQIFTDAFDILAENCEFRENEDSCVTFMRAASVLKSLPFTIISMKD
TEGIPCLGSKVKGIIEEIIEDGESSEVKAVLNDERYQSFKLFTSVFGVGLKTSEKWFRMGFRTLSKVRSD
KSLKFTRMQKAGFLYYEDLVSCVTRAEAEAVSVLVKEAVWAFLPDAFVTMTGGFRRGKKMGHDVDFLITS
PGSTEDEEQLLQKVMNLWEKKGLLLYYDLVESTFEKLRLPSRKVDALDHFQKCFLIFKLPRQRVDSDQSS
WQEGKTWKAIRVDLVLCPYERRAFALLGWTGSRQFERDLRRYATHERKMILDNHALYDKTKRIFLKAESE
EEIFAHLGLDYIEPWERNA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6325_d10.zip

Restriction Sites: SgfI-MluI

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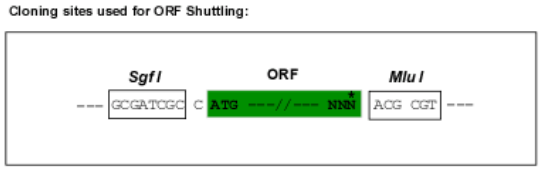
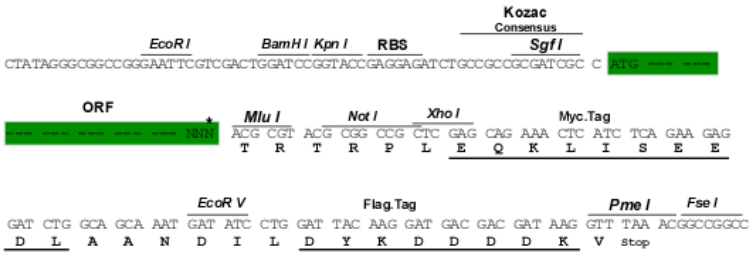
Cloning Scheme:





* The last codon before the Stop codon of the ORF

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_004088.2

RefSeq Size: 2071 bp

RefSeq ORF: 1530 bp

Locus ID: 1791

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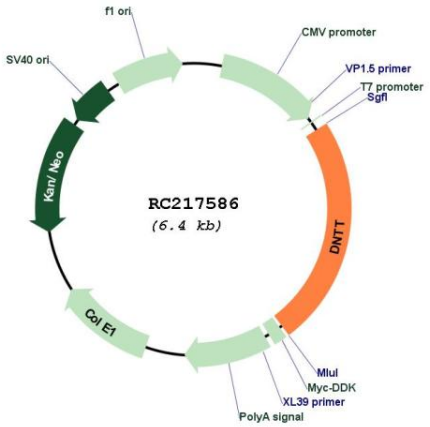
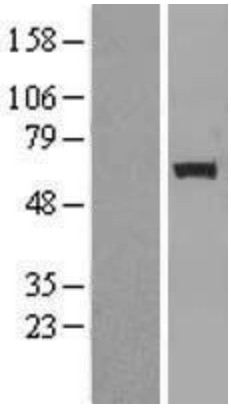
UniProt ID:	P04053
Cytogenetics:	10q24.1
Protein Pathways:	Hematopoietic cell lineage, Non-homologous end-joining
MW:	58.4 kDa
Gene Summary:	This gene is a member of the DNA polymerase type-X family and encodes a template-independent DNA polymerase that catalyzes the addition of deoxynucleotides to the 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 RC217586



Western blot validation of overexpression lysate (Cat# [LY418231]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217586 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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