

Product datasheet for **RC204153**

BTD (NM_000060) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BTD (NM_000060) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BTD
Synonyms:	biotinidase
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC204153 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGCATGCGCATATTCAGGGCGGAAGGCGCGCTAAGAGCAGATTTGTGGTCTGCATTATGTCTGGAG
 CCAGAAGTAAGCTTGCTCTTTCTCTGCGGCTGTACGTGGTTGCCCTGGGAGCCACACCGGGGAGGA
 GAGCGTGGCTGACCATCACGAGGCTGAATATTATGTGGCTGCCGTGTATGAGCATCCATCCATCCTGAGT
 CTGAACCCCTCTGGCTCTCATCAGCCGCCAAGAGGCCTTGAGCTCATGAACCAGAACCTTGACATCTATG
 AACAGCAAGTGATGACTGCAGCCAAAAGGATGTACAGATTATAGTGTTCAGAAAGATGGCATTTCATGG
 ATTCAACTTTACAAGAACATCCATTTATCCATTTTGGACTTCATGCCGTCTCCCAGGTGGTCAAGTGG
 AACCCATGCCTGGAGCCTCACCGCTTCAATGACACAGAGGTGCTCCAGCGCCTGAGTTGTATGGCCATCA
 GGGGAGATATGTTCTTGGTGGCCAATCTTGGGACAAAGGAGCCTTGTATAGCAGTGACCAAGGTGCC
 AAAAGATGGGAGATACCAGTTCAACACAAATGTCTGTTCAGCAATAATGGAACCTTGTGACCCTAC
 CGTAAACACAACCTCTACTTTGAGGCAGCATTTCGATGTTCTCTTAAAGTGGATCTCATCACCTTTGATA
 CCCCTTTGCTGGCAGGTTTGGCATCTTACATGCTTTGATATATTGTTCTTTGACCCTGCCATCAGAGT
 CCTCAGAGACTACAAGGTGAAGCATGTTGTGTACCCAACCTGCCTGGATGAACCAGCTCCCACTCTTGGCA
 GCAATTGAGATTCAGAAAGCTTTTGTGTTGCCTTTGGCATCAACGTTCTGGCAGCTAATGTCCACCACC
 CAGTTCTGGGGATGACAGGAAGTGGCATAACACCCCTCTGGAGTCTTTTGGTACCATGACATGGAAAA
 TCCCAAAGTACCTTATAATTGCCAGGTGGCCAAAAATCCAGTGGGTCTCATTGGTGCAGAGAATGCA
 ACAGGTGAAACGGACCCATCCCATAGTAAGTTTTTAAAAATTTTGTGAGGCGATCCGACTGTGAGAAGG
 ATGCTCAGGAAGTCCACTGTGATGAGGCCACCAAGTGAACGTGAATGCTCTCCACATTTCACTCTGA
 GATGATGTATGACAATTTACCCTGGTCCCTGTCTGGGAAAGGAAGGCTATCTCCACGCTGTTCCAAT
 GGCTCTGCTGTTATTTACTTTACGAGAGGCCACCTTATCCAAAGAGCTGTATGCCCTGGGGTCTTTG
 ATGGGCTTACACAGTACATGGCACTTACTACATCCAAGTGTGTGCCCTGGTCAAGTGTGGGGTCTTGG
 CTTGACACCTGTGGACAGGAAATCACAGAGGCCACGGGGATATTTGAGTTTACCTGTGGGGCACTTC
 AGTACTTCTATATCTTTCTTTGTTTCTGACCTCAGGGATGACCCTAGAAGTCCCTGACCAGCTTGGCT
 GGGAGAATGACCACTATTTCTGAGGAAAAGTAGGCTGTCTCTGGGCTGGTACGGCGGCTCTCTATGG
 GCGCTTGTATGAGAGGGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204153 protein sequence
 Red=Cloning site Green=Tags(s)

MAHAHIQGGRRAKSRFVVCIMSGARSKLALFLCGCYVVALGAHTGEEVADHHEAEYVVAAYVEHPSILS
 LNPLALISRQEALELMNQNDIYEQQVMTAAQKDVQIIIVFPEDGIHGFFNFTRTSIYPFLDFMPSPQVVRW
 NPCLEPHRFNDTEVLQRLSCMAIRGDMFLVANLGTKEPCHSSDPRCPKDGRYQFNTNVVFSNNGTLVDYR
 RKHNLVFEAAFDVPLKVDLITFDTPFAGRFGIFTCFDILFFDPAIRVLRDYKVKHVYPTAWMNQLPLLA
 ATEIQKAFAVAFGINVLAANVHHPVLGMTGSGIHTPLESFWYHDMENPKSHLIIAQVAKNPVGLIGAENA
 TGETDPSHSKFLKILSGDPYCEKDAQEVHCDEATKWNVNAPPTFHSEMMYDNFTLVPVWGKEGYLHVCSN
 GLCCYLLYERPTLSKELYALGVFDGLHTVHGTYIIQVICALVRCGGLGFDTCGQEI TEATGIFEFHLWGNF
 STSYIFPLFLTSGMTLEVPDQLGWENDHYFLRKSRLSSGLVTAALYGRLYERD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6199_b01.zip

Restriction Sites:

Sgfl-Mlul

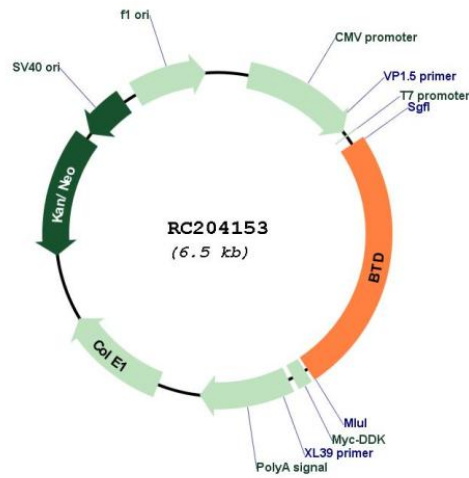
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

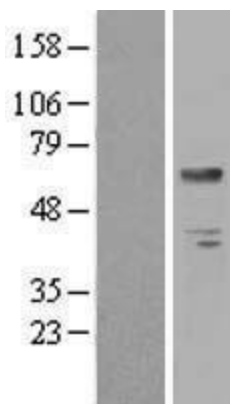
Plasmid Map:



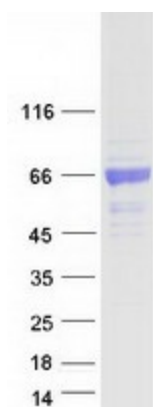
ACCN:

NM_000060

ORF Size:	1629 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:	<ol style="list-style-type: none">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_000060.4
RefSeq Size:	2084 bp
RefSeq ORF:	1632 bp
Locus ID:	686
UniProt ID:	P43251
Cytogenetics:	3p25.1
Domains:	CN_hydrolase
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Biotin metabolism, Metabolic pathways
MW:	61.1 kDa
Gene Summary:	The protein encoded by this gene functions to recycle protein-bound biotin by cleaving biocytin (biotin-epsilon-lysine), a normal product of carboxylase degradation, resulting in regeneration of free biotin. The encoded protein has also been shown to have biotinyl transferase activity. Mutations in this gene are associated with biotinidase deficiency. Multiple transcript variants encoding different isoforms have been described. [provided by RefSeq, Aug 2013]

Product images:

Western blot validation of overexpression lysate (Cat# [LY400015]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204153 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BTD protein (Cat# [TP304153]). The protein was produced from HEK293T cells transfected with BTD cDNA clone (Cat# RC204153) using MegaTran 2.0 (Cat# [TT210002]).