

Product datasheet for **RG238833**

BTD (NM_001281723) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BTD (NM_001281723) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BTD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238833 representing NM_001281723.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGCCAGAGGGAGGCGGGACTAGCAGGAGATTGCTGCCATGCAAAGCAGATTTGTGGTCTGCATTATG
TCTGGAGCCAGAAGTAAGCTTGCTCTTTTCTCTGCGGCTGTTACGTGGTTGCCCTGGGAGCCACACC
GGGGAGGAGAGCGTGGCTGACCATCACGAGGCTGAATATTATGTGGCTGCCGTGTATGAGCATCCATCC
ATCCTGAGTCTGAACCTCTGGCTCTCATCAGCCGCCAAGAGGCCTTGGAGCTCATGAACCAGAACCTT
GACATCTATGAACAGCAAGTGATGACTGCAGCCAAAAGGATGTACAGATTATAGTGTTCAGAAAGAT
GGCATTTCATGGATTCAACTTTACAAGAACATCCATTTATCCATTTTGGACTTCATGCCGCTCCCCAG
GTGGTCAGGTGGAACCCATGCCTGGAGCCTCACCGCTTCAATGACACAGAGGTGCTCCAGCGCTGAGT
TGTATGGCCATCAGGGGAGATATGTTCTTGGTGGCCAATCTTGGGACAAAGGAGCCTTGTCATAGCAGT
GACCCAAGGTGCCAAAAGATGGGAGATACCAGTTC AACACAAAATGTCGTGTT CAGCAATAATGGAACC
CTTGTTGACCGCTACCGTAAACACAACCTCTACTTTGAGGCAGCATTGATGTTCTCTTAAAGTGGAT
CTCATCACCTTTGATACCCCTTTGCTGGCAGGTTTGGCATCTTACATGCTTTGATATATTGTTCTTT
GACCCTGCCATCAGAGTCTCAGAGACTACAAGGTGAAGCATGTTGTGTACCCAACCTGCCTGGATGAAC
CAGCTCCCACTCTTGGCAGCAATTGAGATT CAGAAAAGCTTTTGCTGTTGCCTTTGGCATCAACGTTCTG
GCAGCTAATGTCCACCACCCAGTTCTGGGGATGACAGGAAGTGGCATAACACCCCTCTGGAGTCCCTT
TGGTACCATGACATGGAAAATCCAAAAGTCACTTATAATTGCCAGGTGGCCAAAATCCAGTGGGT
CTCATTGGTGCAGAGAATGCAACAGGTGAAACGGACCCATCCCATAGTAAGTTTTAAAAATTTGTCA
GGCGATCCGTA CTGTGAGAAGGATGCTCAGGAAGTCCACTGTGATGAGGCCACCAAGTGGAAACGTGAAT
GCTCCTCCACATTTCACTCTGAGATGATGATGACAATTTACCCTGGTCCCTGTCTGGGAAAGGAA
GGCTATCTCCACGCTGTTCCAATGGCCTCTGCTGTTATTTACTTTACGAGAGGCCACCTTATCCAAA
GAGCTGTATGCCCTGGGGTCTTTGATGGGCTTACACAGTACATGGCACTTACTACATCCAAGTGTGT
GCCCTGTCAGGTGTGGGGTCTTGGCTTGCACACCTGTGGACAGGAAATCACAGAGGCCACGGGGATA
TTTGAGTTTACCTGTGGGGCAACTTCAGTACTTCTATATCTTTCTTTGTTTCTGACCTCAGGGATG
ACCCTAGAAGTCCCTGACCAGCTTGGCTGGGAGAATGACCACTATTTCTGAGGAAAAGTAGGCTGTCC
TCTGGGCTGGTGACGGCGCTCTCTATGGGCGCTTGTATGAGAGGGAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence:

>Peptide sequence encoded by RG238833
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MPEGGTSRRLPMQSRFVVCIMSGARSKLALFLCGCYVVALGAHTGEESVADHHEAEYYVAAYVEHPS
ILSLNPLALISRQEALELMNQNLDIYEQQVMTAAQKDVQIIVFPEDGIHGFNFTRTSIYPFLDFMPSPQ
VVRWNPCLPHRFNDTEVLQRLSCMAIRGDMFLVANLGTKEPCHSSDPRCPKDGRYQFNTNVVFSNNGT
LVDRYRKHNLVFEAAFDVPLKVDLITFDTPFAGRFGIFTCFDILFFDPAIRVLRDYKVKHVVYPTAWMN
QLPLLAIEIQKAFVAVFGINVLAANVHHPVLGMTGSGIHTPLESFWYHDMENPKSHLIIAQVAKNPVG
LIGAENATGETDPSHSKFLKILSGDPYCEKDAQEVHCDEATKWNVNAPPTFHSEMMYDNFTLVPVWGKE
GYLHVCSNGLCCYLLYERPTLSKELYALGVFDGLHTVHGTYIYQVLCALVRCGGLGFDTCGQEI TEATGI
FEFHLWGNFSTSYIFPLFLTSGMTLEVDPQLGWENDHYFLRKSRLSSGLVTAALYGRLYERD
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVI GDFKVMGTGFPEP
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHP SILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

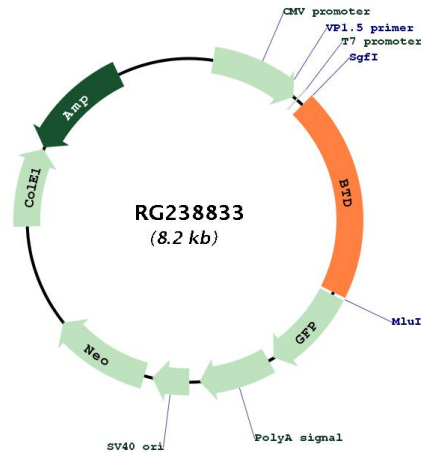
Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

 HindIII NheI RsrII MluI NotI XhoI GFP Tag
 CAAGCTTAACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- ---
 T R T R P L E M E S D - - -

 PmeI FseI
 --- GAA GAA AGA GTT TAA ACGGCCGGCCGCGGAGCT
 - - E E R V Stop

Plasmid Map:


ACCN:	NM_001281723
ORF Size:	1635 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).
RefSeq:	NM_001281723.2 , NP_001268652.1

RefSeq Size:	2353 bp
RefSeq ORF:	1572 bp
Locus ID:	686
UniProt ID:	<u>P43251</u>
Cytogenetics:	3p25.1
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Biotin metabolism, Metabolic pathways
MW:	61.8 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]