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Product datasheet for RG227598

BTN3A1 (NM_001145009) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BTN3A1 (NM_001145009) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BTN3A1
Synonyms:	BT3.1; BTF5; BTN3.1; CD277
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG227598 representing NM_001145009
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAAATGGCAAGTTTCCTGGCCTTCCTTCTGCTCAACTTTCGTGTCTGCCTCCTTTTGCTTCAGCTGC
TCATGCCTCACTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGA
CGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCC
AGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAGACAGGCAGAGTGCACCGTATC
GAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTCAC
AGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTATGAAAAAGCCCTGGTGGAG
CTGAAGGTTGCAGCACTGGGTTCTGATCTTCACGTTGATGTGAAGGGTTACAAGGATGGAGGGATCCATC
TGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAAATACAGTGGAGCAACAACAAGGGAGAGAACAT
CCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATG
AGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAAAGACAGCCA
GCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCCAGAGGTGGATCGCCGCCCTGGCAGGGACCCTGCC
TGTCTTGCTGCTGCTTCTTGGGGGAGCCGGTTACTTCCTGTGGCAACAGCAGGAGGAAAAAAAGACTCAG
TTCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAATGAAGCAAGAACAAAGCA
CAAGAGTGAAGCTCCTGGAGGAACTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTC
AGCCTATAATGAATGGAAAAAGGCCCTCTTCAAGCCTGGGCCTCCCATTGGCCAAACCCAACAGCAAACC
AGAGGACAAGGGAGCCCAGTGGCACTGTCTCAGGAATCTGCCCAGAGGACAGATTCCTGGGGCCCAGAAG
AGGGTGGAGAAAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

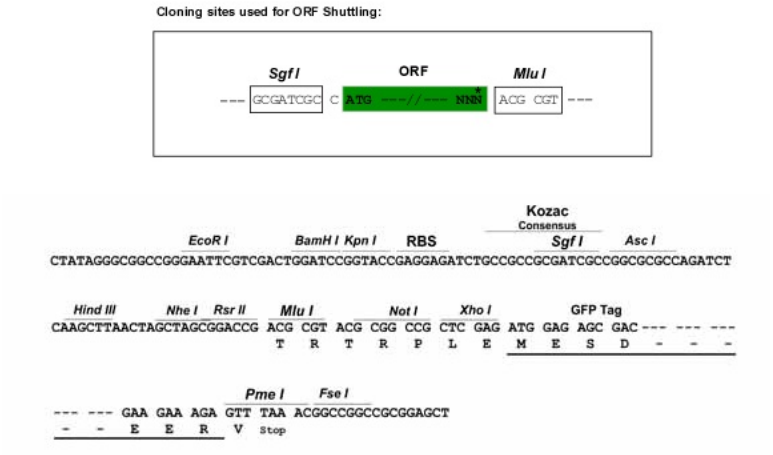
>RG227598 representing NM_001145009
Red=Cloning site Green=Tags(s)

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELKWVSS
SLRQVVNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVE
LKVAALGSDLHVDVKGYKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIM
RGSSGEGVSCTIRSSLLGLEKTASISIADPFFRSAQRWIAALAGTLPVLLLLLGGAGYFLWQQQEEKKTQ
FRKKKREQELREMAWSTMKQEQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPGPPIGQTQQQT
RGQGSPVALSQESAQRTDSWGPEEGGES

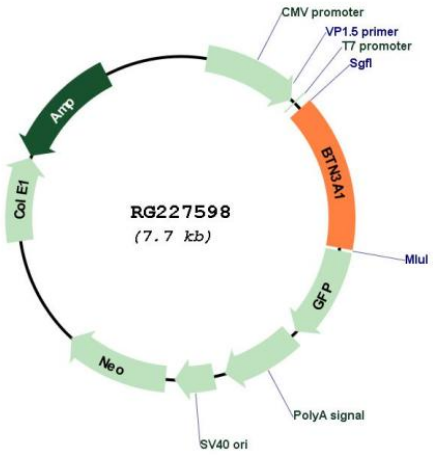
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001145009

ORF Size:	1134 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_001145009.2
RefSeq Size:	4191 bp
RefSeq ORF:	1137 bp
Locus ID:	11119
UniProt ID:	O00481
Cytogenetics:	6p22.2
Protein Families:	Druggable Genome, Transmembrane
Gene Summary:	The butyrophilin (BTN) genes are a group of major histocompatibility complex (MHC)-associated genes that encode type I membrane proteins with 2 extracellular immunoglobulin (Ig) domains and an intracellular B30.2 (PRYSPRY) domain. Three subfamilies of human BTN genes are located in the MHC class I region: the single-copy BTN1A1 gene (MIM 601610) and the BTN2 (e.g., BTN2A1; MIM 613590) and BTN3 (e.g., BNT3A1) genes, which have undergone tandem duplication, resulting in 3 copies of each (summary by Smith et al., 2010 [PubMed 20208008]).[supplied by OMIM, Nov 2010]