

## Product datasheet for **RG202536**

### **BTN3A3 (NM\_197974) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BTN3A3 (NM_197974) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BTN3A3
Synonyms:	BTF3; BTN3.3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG202536 representing NM\_197974  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGA  
 GGTGGGTGAGTTCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAAGACAGGCA  
 GAGTGCACCGTATCGAGGGAGAAGTTCGATTCTGCGGGATGGCATTCACTGCAGGGAAAGGCTGCTCTCCGA  
 ATACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAA  
 AAGCCCTGGTGGAGCTGAAGGTTGCAGCATTGGGTTCTGATCTTACATTGAAGTGAAGGTTATGAGGA  
 TGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCAACCCCAAATAAAGTGGAGCGACACC  
 AAGGGAGAGAACATCCCGCTGTGGAAGCACCTGTGGTGCAGATGGAGTGGGCTGTATGCAGTAGCAG  
 CATCTGTGATCATGAGAGGCAGCTCTGGTGGGGTGTATCCTGCATCATCAGAAATCCCTCTCGGCCCT  
 GGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTCAGGAGCGCCAGCCCTGGATCGCGGCCCTG  
 GCAGGGACCCCTGCCTATCTCGTTGCTGTTCTCGCAGGAGCCAGTTACTTCTGTGGAGACAACAGAAGG  
 AAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATGGGATACGCTGCAACAGA  
 GCAAGAAATAAGCCTAAGAGAGTGGAGGAAAATCCAGTACATGGCTCGTGGAGAGAAGTCTTTGGCCTAT  
 CATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATTCTGGATCCAGACACGGCAACCGCCATCC  
 TCCTTGTTTCTGAGGACCAGAGGAGTGTGCAGCGTGTGAAGAGCCGCGGGATCTGCCAGACAACCTGA  
 GAGATTTGAATGGCGTTACTGTGTCCTTGGCTGTGAAACTTCACATCAGGGAGACATTACTGGGAGGTG  
 GAAGTGGGGACAGAAAAGAGTGGCATAATTGGGTATGTAGTAAAGACGTGGAGAGGAAAAAAGTTGGG  
 TCAAAATGACACCGGAGAACGGATACTGGACTATGGGCTGACTGATGGGAATAAGTATCGGGCTCAC  
 TGAGCCCAGAACCAACCTGAAACTTCTGAGCCTCCTAGGAAAGTGGGGATCTTCTGACTATGAGACT  
 GGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCCGCACGCCTCTTTCTCTG  
 AGCCTCTATATCTGTTTTCAGAATTTTGACCTTGGAGCCACTGCCCTGACCATTTGCCAATACCAAAA  
 AGAAGTAGAGAGTTCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCCTGACCCCGGGC  
 TTAGCTAATGAAAGTGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCTGGAGCTG  
 AGGTCTCCCTTCTGCAACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG202536 representing NM\_197974  
 Red=Cloning site Green=Tags(s)

MVGEDADLPCHLFPTMSAETMELRWVSSSLRQVNVYADGKEVEDRQSAPYRGRSILRDGITAGKAALR  
 IHNVTASDSGKYLQYFDGDFYEKALVELKVAALGSDLHIEVKGYEDGGIHLERSTGWYQPQIKWSDT  
 KGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGVSCIIRNSLLGLEKTASISIAADPFSAQPWIAAL  
 AGTLPISLLLLAGASYFLWRQKKEKIALSRETEREREMKEMGYAATEQEISLREWRKIQYMARGEKSLAY  
 HEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEPRDLDPNPERFEWRYCVLGCENFTSGRHYWEV  
 EVGDRKEWHIGVCSKNVERKKGWVMTPENGYWTMGLTDGNKYRALTEPRNLKLEPPRVKGFILDYET  
 GEISFYNATDGSIIYTFPHASFSEPLYPVFRILTLEPTALTICPIKVESSPDPDLVPDHSLETPLTPG  
 LANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHLQARTEALY

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

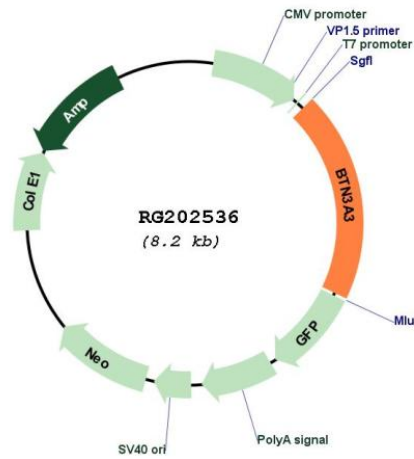
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_197974
<b>ORF Size:</b>	1605 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_197974.3</a>
<b>RefSeq Size:</b>	2927 bp
<b>RefSeq ORF:</b>	1608 bp
<b>Locus ID:</b>	10384
<b>UniProt ID:</b>	<a href="#">O00478</a>
<b>Cytogenetics:</b>	6p22.2
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Gene Summary:</b>	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., BNT3A3) 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]