

## Product datasheet for **RG231156**

### **BTN2A2 (NM\_001197239) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	BTN2A2 (NM_001197239) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BTN2A2
Synonyms:	BT2.2; BTF2; BTN2.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG231156 representing NM_001197239 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAACCAGCTGCTGCTCTGCACTTCTCCCTGCCAGCCTCCCTCCTCCTCCTGCTCCTCCTCCTTC  
TCAGCCTGTGTGCACTGGTCTCAGAATCCTTTATGCCAGCGCATCTCCCTGGATGGTGGCCCTAGCTGT  
CATCCTGACCGCATCTCCCTGGATGGTGTCCATGACTGTCATCCTGGCTGTTTTATCATCTTCATGGCT  
GTCAGCATCTGTTGCATCAAGAACTTCAAAGGGAAAAAAGATTCTGTCAGGGGAAAAGAAAGTTGAAC  
AAGAGGAAAAAGAAATTGCACAGCAACTCAAGAAGAATTGCGATGGAGAAGAACATTCTTACATGCTGC  
TGATGTGGTCTGGATCCAGACACCGCTCATCCCGAGCTCTCCTGTGAGGACCGGAGAAGTGTGAGG  
CGGGGCCCTACAGGCAGAGAGTGCCTGACAACCCAGAGAGATTCGACAGTCAGCCTTGTGTCTGGGAT  
GGGAGAGCTTCGCCTCAGGGAAACATTACTGGGAGGTGGAGGTGGAAAACGTGATGGTGTGGACTGTGGG  
GGTCTGCAGACACAGTGTGAGAGGAAAGGGAGGTCTGCTGATTCTCAGAAATGGCTTCTGGACCCTG  
GAGATGTTTGGAAACCAATACCGGGCCCTGTCTCCCTGAGAGGATTCTCCCTTGAAGGAGTCCCTTT  
GCCGGTGGGCGTCTTCTGGACTATGAAGCTGGAGATGTCTCCTTCTACAACATGAGGGACAGATCGCA  
CATCTACACATGTCCCGTTTCAGCCTTACTGTGCTGTGAGGCCCTTCTCAGGTTAGGGTCTGATGAC  
AGCCCCATCTTCATCTGCCCTGCACTCACAGGACCCAGTGGGGTTCATGGTGCCTGAAGAGGGCCTGAAAC  
TTCACAGAGTGGGGACCCACCAGAGCCTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG231156 representing NM\_001197239  
Red=Cloning site Green=Tags(s)

MEPAAALHFSLPASLLLLLLLLLLLLSLCALVSESFMPSPASPMMVALAVILTASPMMVSMTVILAVFIIFMA  
 VSICCIKKLQREKKILSGEKKVEQEEKEIAQQLQEELRWRRTFLHAADVLDPDTAHPELFLSEDRRSVR  
 RGPYRQRVDPNPERFDSQPCVLGWESFASGKHYWEVEVENVMVWTVGVCRHSVERKGEVLLIPQNGFWTL  
 EMFGNQYRALSSPERILPLKESLCRVGVFLDYEAGDVSFYNMRDRSHIYTCPRSAFTVPVPRPFFRLGSDS  
 SPIFICPALTGASGVMVPEEGLKLRVGVGTHQSL

TRTRPLE - GFP Tag - V

**Restriction Sites:**

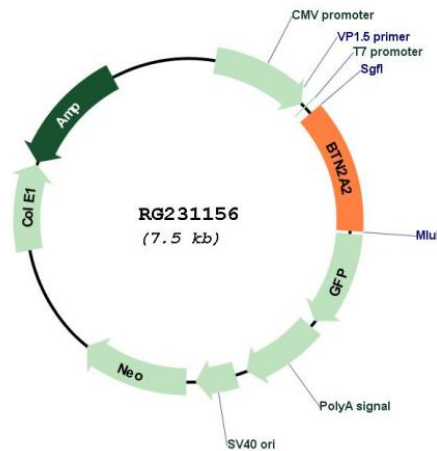
SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001197239

**ORF Size:** 939 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_001197239.2</a>
<b>RefSeq Size:</b>	2969 bp
<b>RefSeq ORF:</b>	942 bp
<b>Locus ID:</b>	10385
<b>UniProt ID:</b>	<a href="#">Q8WV5</a>
<b>Cytogenetics:</b>	6p22.2
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Gene Summary:</b>	Butyrophilin is the major protein associated with fat droplets in the milk. This gene is a member of the BTN2 subfamily of genes, which encode proteins belonging to the butyrophilin protein family. The gene is located in a cluster on chromosome 6, consisting of seven genes belonging to the expanding B7/butyrophilin-like group, a subset of the immunoglobulin gene superfamily. The encoded protein is a type I receptor glycoprotein involved in lipid, fatty-acid and sterol metabolism. Several alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2010]