

## Product datasheet for **RG234351**

### **BTN2A2 (NM\_001197237) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BTN2A2 (NM_001197237) 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)



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**ORF Nucleotide Sequence:**

>RG234351 representing NM\_001197237  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAACCAGCTGCTGCTGCACTTCTCCTGCCAGCCTCCCTCCTCCTCCTGCTCCTCCTCCTC  
 TCAGCCTGTGTGCACTGGTCTCAGCCCAGTTACTGTCGTGGGGCCAGCTAATCCCATCCTGGCCATGGT  
 GGGAGAAAACTACATTACGCTGCCATCTGTACCCGAGAAAAATGCTGAGGACATGGAGGTGCGGTGG  
 TTCCGGTCTCAGTTCTCCCCGAGTGTGTGTATAAGGGTGGGAGAGAGAGAACAGAGGAGCAGATGG  
 AGGAGTACCGGGGAAGAATCACCTTTGTGAGCAAAGACATCAACAGGGGCAGCGTGGCCCTGGTCATACA  
 TAACGTCACAGCCAGGAGAATGGGATCTACCGCTGTTACTTCCAAGAAGGCAGGTCCTACGATGAGGCC  
 ATCCTACGCCCTCGTGGTGGCAGGCCTTGGGTCTAAGCCCTCATTGAAATCAAGGCCAAGAGGATGGGA  
 GCATCTGGCTGGAGTGCATATCTGGAGGGTGGTACCCAGAGCCCCTCACAGTGTGGAGGGACCCCTACGG  
 TGAGGTTGTGCCGCCCTGAAGGAGTTTCCATCGCTGATGCTGACGGCCTTTCATGGTCACCACAGCT  
 GTGATCATCAGAGACAAGTATGTGAGGAATGTGTCCTGCTCTGTCAACAACACCTGCTCGGCCAGGAGA  
 AGGAAACTGTCATTTTTATTCCAGAATCCTTTATGCCAGCGCATCTCCCTGGATGGTGGCCCTAGCTGT  
 CATCCTGACCGCATCTCCCTGGATGGTGTCCATGACTGTCATCCTGGCTGTTTTTCATCATCTTCATGGCT  
 GTCAGCATCTGTTGCATCAAGAACTTCAAAGGGAAAAAAGATTCTGTGAGGGGAAAAGAAAGTTGAAC  
 AAGAGGAAAAAGAAATTGCACAGCAACTCAAGAAGAATTGCGATGGAGAAGAACATTCTTACATGCTGC  
 TGATGTGGTCTGGATCCAGACACCGCTCATCCGAGCTTCTCCTGTGAGGACCGGAGAAGTGTGAGG  
 CGGGGCCCTACAGGCAGAGAGTGCCTGACAACCCAGAGAGATTCGACAGTCAGCCTTGTGCTGGGAT  
 GGGAGAGCTTCGCTCAGGGAACATTACTGGAGGTGGAGGTGGAAAACGTGATGGTGTGGACTGTGGG  
 GGTCTGCAGACACAGTGTGAGAGGAAAGGGAGGTCTGCTGATTCTCAGAATGGCTTCTGGACCCTG  
 GAGATGTTTGAACAATACCGGCCCTGTCTCCCTGAGAGGATTCTCCCTTGAAGGAGTCCCTTT  
 GCCGGTGGGCGTCTTCTGGACTATGAAGCTGGAGATGTCTCCTTCTACAACATGAGGGACAGATCGCA  
 CATCTACACATGTCCCGTTCAGCCTTACTGTGCCTGTGAGGCCCTTCTCAGGTTAGGGTCTGATGAC  
 AGCCCCATCTTCTGCTGCACTCACAGGAGCCAGTGGGTCATGGTGCCTGAAGAGGGCCTGAAAC  
 TTCACAGAGTGGGACCCACCAGAGCCTA

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG234351 representing NM\_001197237  
 Red=Cloning site Green=Tags(s)

MEPAAALHFSLPASLLLLLLLLLLLLSLCALVSAQFTVVGPNPILAMVGENTTLRCHLSPEKNAEDMEVRW  
 FRSQFSPAVFVYKGGREERTEEQMEEYRGRITFVSKDINRGSVALVIHNVTAQENGIYRCYFQEGRSYDEA  
 ILRLVVAGLGSKPLIEIKAQEDGSIWLECSGGWYPEPLTVWRDPYGEVVPALKEVSIADADGLFMVTTA  
 VIIRDKYVRNVSCSVNNTLLGQEKETVIFIPESFMPSPWVALAVILTASPWMVSMTVILAVFIFMA  
 VSICCIKKLQREKKILSGEKKVEQEEKEIAQQLQEELRWRRTFLHAADVLDPDTAHPELFLSEDRRSVR  
 RGPYRQRPVDPNPERFDSQPCVLGWESFASGKHYWEVEVENVMVWTVGVCRHSVERKGEVLLIPQNGFWTL  
 EMFGNQYRALSSPERILPLKESLCRVGVFLDYEAGDVSYNMRDRSHIYTCPRSAFTVPVRPFRLGSDS  
 SPIFICPALTGASGVMVPEEGLKLRVGVTHQSL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul



<b>ACCN:</b>	NM_001197237
<b>ORF Size:</b>	1569 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_001197237.2</a>
<b>RefSeq Size:</b>	3621 bp
<b>RefSeq ORF:</b>	1572 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]