

## Product datasheet for RC223245

### BTN2A2 (NM\_181531) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	BTN2A2 (NM_181531) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BTN2A2
Synonyms:	BT2.2; BTF2; BTN2.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC223245 representing NM_181531 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAACCAGCTGCTGCTCTGCACTTCTCCCTGCCAGCCTCCCTCCTCCTCCTGCTCCTCCTCCTTC  
TCAGCCTGTGTGCACTGGTCTCAGGCCCTGGGTCTAAGCCCTCATTGAAATCAAGGCCCAAGAGGATGG  
GAGCATCTGGCTGGAGTGCATATCTGGAGGGTGGTACCCAGAGCCCTCACAGTGTGGAGGGACCCCTAC  
GGTGAGGTTGTGCCGCCCTGAAGGAGGTTTCCATCGCTGATGCTGACGGCCTTTCATGGTCACCACAG  
CTGTGATCATCAGAGACAAGTATGTGAGGAATGTGCCTGCTGTCAACAACACCCTGCTCGGCCAGGA  
GAAGGAAACTGTCATTTTTATTCCAGAATCCTTTATGCCAGCGCATCTCCCTGGATGGTGGCCCTAGCT  
GTCATCCTGACCGCATCTCCCTGGATGGTGTCCATGACTGTCATCCTGGCTGTTTTTCATCATCTTCATGG  
CTGTGACGATCTGTTGCATCAAGAACTTCAAAGGGAAAAAAGATTCTGTGAGGGGAAAAGAAAGTTGA  
ACAAGAGGAAAAAGAAATTGCACAGCAACTTCAAGAAGAATTGCGATGGAGAAGAACATTCTTACATGCT  
GCTGATGTGGTCTGGATCCAGACACCGCTCATCCCGAGCTCTTCTGTGACAGGACCGGAGAAGTGTGA  
GGCGGGGCCCCACAGGCAGAGAGTGCCTGACAACCCAGAGAGATTGACAGTCAGCCTTGTGCTCTGGG  
ATGGGAGAGCTTCGCCTCAGGAAACATTACTGGAGGTGGAGGTGAAAACTGATGGTGTGGACTGTG  
GGGTCTGCAGACACAGTGTGAGAGGAAAGGGAGGTCCTGCTGATTCCCTCAGAATGGCTTCTGGACCC  
TGGAGATGTTTGAAACCAATACCGGGCCCTGTCTCCCTGAGAGGATTCTCCCTTGAAGGAGTCCCT  
TTGCCGGTGGGCGTCTTCTGACTATGAAGCTGGAGATGTCTCCTTCTACAACATGAGGGACAGATCG  
CACATCTACATGTCCCGTTCAGCCTTACTGTGCCTGTGAGGCCCTTCTTCAGGTTAGGGTCTGATG  
ACAGCCCCATCTCATCTGCCCTGCACTCACAGGACCCAGTGGGGTCATGGTGCCTGAAGAGGGCCTGAA  
ACTTCACAGAGTGGGGACCCACCAGAGCCTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC223245 representing NM\_181531  
Red=Cloning site Green=Tags(s)

MEPAAALHFSLPASLLLLLLLLLLLLSLCALVSGLGSKPLIEIKAQEDGSIWLECISSGGWYPEPLTVWRDPY  
 GEVVPALKEVSIADADGLFMVTTAVIIRDKYVRNVSCSVNNTLLGQEKETVIFIPESFMPSASPWMVALA  
 VILTASPMWVSMTVILAVFIIIFMAVSICCIKKLQREKKILSGEKKVEQEEKEIAQQLQEELRWRRTFLHA  
 ADVVLDPDTAHPELFLSEDRRSVRRGYPYRQRPVDPNPERFDSQPCVLGWESFASGKHYWEVEVENVMWTV  
 GVCRHSVERKGEVLLIPQNGFWTLEMFGNQYRALSSPERILPLKESLCRVGVFLDYEAGDVSYFYNNRDRS  
 HIYTCPRSAFTVPVPRPFRLGSDDSPIFICPALTGASGVMVPEEGLKLRVGHQSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_181531

**ORF Size:** 1221 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\\_181531.3](#)

**RefSeq Size:** 3226 bp

**RefSeq ORF:** 1224 bp

**Locus ID:** 10385

**UniProt ID:** [Q8WV5](#)

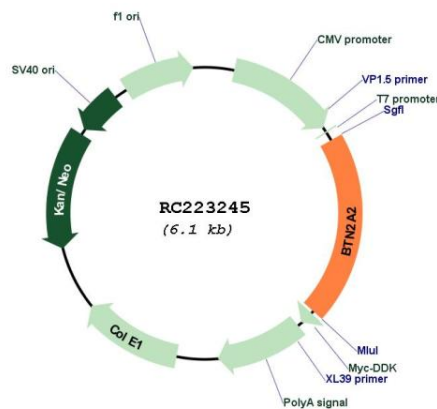
**Cytogenetics:** 6p22.2

**Protein Families:** Druggable Genome, Transmembrane

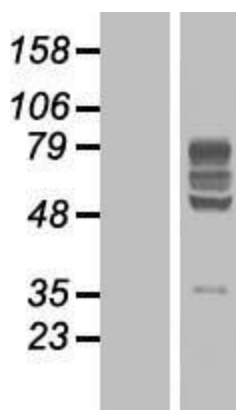
**MW:** 45.6 kDa

**Gene Summary:** 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]

### Product images:



Circular map for RC223245



Western blot validation of overexpression lysate (Cat# [LY405693]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223245 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).