

## Product datasheet for **SC107714**

### **BTN3A3 (NM\_197974) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	BTN3A3 (NM_197974) Human Untagged Clone
Tag:	Tag Free
Symbol:	BTN3A3
Synonyms:	BTF3; BTN3.3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene sequence for NM_197974 edited
GAATTCGGCACGAGTGCTTTCTTTTCTTTCTTCGGAATGAGAGACTCAACCATAATAG
AAAGAATGGAGAACTATTAACCACCATTCTTCAGTGGGCTGTGATTTTCAGAGGGGAATA
CTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGCAGACATTTT
TGGCAGAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCATCCTGGCCATGGTGGGTGA
AGACGCTGATCTGCCCTGTCACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAG
GTGGGTGAGTTCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAGGAAGTGA
AGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGC
AGGGAAGGCTGCTCTCCGAATACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTG
TTATTTCCAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGTTGCAGCATT
GGGTTCTGATCTTACATTGAAGTGAAGGTTATGAGGATGGAGGGATCCATCTGGAGTG
CAGGTCCACTGGCTGGTACCCCCAACCCAAATAAAGTGGAGCGACACCAAGGGAGAGAA
CATCCCGCTGTGAAGCACCTGTGGTTGCAGATGGAGTGGCCTGTATGCAGTAGCAGC
ATCTGTGATCATGAGAGGCAGCTCTGGTGGGGTGTATCCTGCATCATCAGAAATCCCT
CCTCGGCTGGAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGGAGCGCCCA
GCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGC
CAGTACTTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAAG
AGAGCGAGAGATGAAAGAAATGGGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGA
GAAGCTCCAGGAGGAACTCAAGTGGAGGAAAAATCCAGTACATGGCTCGTGGAGAGAAGTC
TTTGGCCTATCATGAATGGAATAAGGCCCTCTTCAAACCTGCGGATGTGATTCTGGATCC
AGACACGGCAAACGCCATCCTCCTGTTTCTGAGGACCAGAGGAGTGTGCAGCGTGTGA
AGAGCCCGGGATCTGCCAGACAACCCTGAGAGATTTGAATGGCGTTACTGTGTCCTTGG
CTGTGAAAACTTACATCAGGGAGACATTACTGGGAGTGAAGTGGGGGACAGAAAAAGA
GTGGCATATTGGGTATGTAGTAAGAACGTGGAGAGGAAAAAAGTTGGGTCAAAATGAC
ACCGGAGAACGGATACTGGACTATGGCCTGACTGATGGGAATAAGTATCGGGCTCTCAC
TGAGCCCAGAACCAACCTGAAACTTCTGAGCCTCCTAGGAAAGTGGGATCTTCTGGA
CTATGAGACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTT
TCCGCACGCCTCTTCTCTGAGCCTCTATATCCTGTTTTCAGAATTTTGACCTTGGAGCC
CACTGCCCTGACCATTTGCCAATACCAAAAAGAAGTAGAGAGTCCCGGATCCTGACCT
AGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAAAGTGGGA
GCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCTGGAGCTGAGGTCTCCCC
TTCTGCAACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATA
TTCATTCCATTATTCATATGACAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCTT
ATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATTAACCTTACAAAGTAGACATGACA
AGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAATTTAAAT
GTTCTTAGTGCTGTGTTAAGCTTTGGTGGATGTCACTCCTTAACTCCTCACACACCC
TGTCGGGTAGTCATATTTGCAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACTTA
CATAACTCATACAGTAATTTGTGCAGTTGGGAGATGTTACGCCTTAGTCCCTGGCTAATT
GCCTGTTCTTTCCAGCCTGATTTTTTTTCCACAGGAAGAGCCACATGTAGCCCTGAG
GTTTCCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAGTGCTTGTGGAGTTGACAT
CCCTATTGACTCTTCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGC
TCTGCAGAGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGG
AAAGAGACTAGAGGCCACACTTGATAAATCATGGGGCACAGATATGTTCCCAACCAACAA
ATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCTTCAATCAAGGTTTCCAGGCAGA
GCAAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCTAAAAGAAT
TACAGGGATGTTTTAATCCCACTATGGACTCAGTCTCCTGAAATAGGTCTGTCCACTC
CTGGTCATTGGTGGATGTTAAACCCATATTCCTTCAACTGCTGCCTGCTAGGGAAAAC
GCTCCTCATTATCATCACTATTATTGCTCACCCTGTATCCCCTCACTTGGCAAGTGGT
TGTCAGTTCTAGTTGTTCAATAAATGTGTTAATAATGCTTAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAACTCGAC
    
```

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_197974 unedited  
 ACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGTGCTTTCTTTTCTTTCTTCGG  
 AATGAGAGACTCAACCATAATAGAAAGAATGGAGAACTATTAACCACCATTCTTCAGTGG  
 GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAA  
 AGACACTCAAGGACAGACATTTTTGGCAGAGCTCAGTTTTCTGTGCTTGGACCCTCTGGG  
 CCCATCCTGGCCATGGTGGTGAAGACGCTGATCTGCCCTGTACCTGTTCCCGACCATG  
 AGTGCAGAGACCATGGAGCTGAGGTGGGTGAGTCCAGCCTAAGGCAGGTGGTGAACGTG  
 TATGCAGATGAAAGGAAGTGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCG  
 ATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC  
 TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTACTTCTACGAAAAAGCCCTG  
 GTGGAGCTGAAGGTTGCAGATTNGTTCTGATCTTACATTGAAGTGAAGGGTTATGAGA  
 GGGNAGGGATCCATCTGGAGNTGCAGGTCCACTGGCTGGTACCCCAACCCCAAATAAGT  
 GGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCTGTGGTGCAGATGGGA  
 ATGGGCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCACTCTGTGGGGGGGGG  
 TTTCCCTGCTTATCAAAAATTCCTCCTCGGCCTGAAAAAGAAGCCAGCATATCCATCGC  
 AGACCCCTTTTTAGAGCGCCAGCCCTGGATCGCGCCCTTGGCAGGACCCTGCCTTATT  
 CGTTGCTGTTTTCGCAGGACCAGTACTTTTTGGGGGAGACACGAGGGAAAATTTGTTGTC  
 CGGGGACGAAAAAGCAGAGAGAAGAAAGGGATCCTGCACGACAAGAATACC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_197974 unedited  
 TTTACACTTTATTGACACTAGACTTGACAACCCTTGCCAGTAGAGGGGATACAGTGGTGA  
 GCAATAATAGTGATGATAATGAGGAGCAGTTTTCCCTAGCAGGCAGCAGTTGAAAGGAAT  
 ATGGGTTTAAACATCCACCAATGACCAGGAGTGGACAGACCTATTTCCAGGAGACTGAGTC  
 CATAGTGGGATTA AAAACATCCCTGTAATTCTTTTAGCTTCCTTGATCCAAATTCCTAT  
 ATCACAGAGAATCTTAGGGTATTTGCTCTGCCTGAAACCTTGATTGAAGGAAGGCTGG  
 CTCTGGCTGCACAATCACTTATCACATTTGTTGGGTGGGAACATATCTGTGCCCATGAT  
 TTATCAAGTGTGGCCTCTAGTCTCTTCCAAGTACATGTCATGTTGGTACTATGAGGTT  
 ATTCTCTCAACCAAGACTCTGCAGAGCTAATCCAAGGAGTGTGGGTCTAAGTCTCTG  
 ATATCAGCTGGGAAAGAGTCAATAGGGATGTCAACTCCACAAGCACTTAAATGATCTCT  
 ACCCTGCAGCTGTCTGGGAAGGAAACCTCAGGGCTACATGTGGGCTCTTCTGTGGGAA  
 AAAAATCAGGCTGAAAAAACAGGCAATTAGCCAGGGACTAAGGCTGAACATCTCCCAAC  
 TGCACANATTACTGTATGAGTTATGTAAGTTACTTCATGTTGCCCTGCCTCAGTTNCCAT  
 ACTTGCAAAATATGACTACCCGACAGGGTGTGTGAGGATTAAGAGTGAACATCCACCA  
 AAGCTTATTACACAGCACTTAGAAACATTTAATTCTCTGNTAATGTTAAGTATCTGCTT  
 TGTTAGATCCCAGCTCTGCTGTTCACTTGCCATGTCTACTTTGAAAGTAATCACCCCTT  
 TGCACCCATTTNCTTATCTGTTAGGGGCACATAAGGTGGCCGAAACTCAAACAACGT  
 CATATGGATATGG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_197974

**Insert Size:**

3000 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_197974.1](#), [NP\\_932078.1](#)

**RefSeq Size:** 2866 bp

**RefSeq ORF:** 1629 bp

**Locus ID:** 10384

**UniProt ID:** [O00478](#)

**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., 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]

Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region, uses a downstream translational start codon, and lacks an alternate in-frame exon in the central coding region, compared to variant 1. The encoded isoform (b) is shorter than isoform a.