

## Product datasheet for **RG203420**

### Tuftelin 1 (TUFT1) (NM\_020127) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tuftelin 1 (TUFT1) (NM_020127) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tuftelin 1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG203420 representing NM_020127 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAACGGGACGCGGAAGCTGGTGTACCCTGGTGGACGTGCACCCAGAGGACCAGGCGGGGCGAGCGTGG  
ACATTCTCAGGCTGACTCTCCAGGGTGAAGTGCACAGGAGATGAAGTGAACACATAGCCCAGAAGGCGGG  
CAGGAAGACCTATGCCATGGTGTCCAGCCACTCAGCTGGTCATTCTCTGGCTTCAGAAGTGGTGGAGTCC  
CATGATGGACATGAGGAGATCATTAAAGGTGTACTTGAAGGGGAGGTCTGGAGACAAGATGATTCACGAGA  
AGAATATTAACCCAGCTGAAGAGTGAAGTCCAGTACATCCAGGAGGCCAGGAAGTGCCTACAGAAGCTCCG  
GGAGGATATAAGTAGCAAGCTTGACAGGAACCTAGGAGATTCTCTCCATCGACAGGAGATACAGGTGGTG  
CTAGAAAAGCCAAATGGCTTTAGTCAGAGTCCACAGCCCTGTACAGCAGCCACCTGAGGTGGACACCT  
GTATAAATGAGGATGTTGAGAGCTTGAGGAAGACGGTGCAGGACTTGCTGGCCAAGCTTCAGGAGGCCAA  
GCGGCAACACCAGTCACTGTGTGGCTTTTGGAGTCCACTCAGCCGGTACCAGAGGGAAGCAGAAACAA  
AGTAATGTGGCCCTTCAGAGAGAGGAGGACAGAGTGGAGCAGAAAGAGGCAGAAGTCGGAGAGCTGCAGA  
GGCGCTTGTAGGGATGGAGACGGAGCATCAGGCCTTACTGGCGAAAAGTGAAGGAAAGGGGAGGTGGCCCT  
AGAGGAACTTCGGAGCAACAATGCTGACTGCCAAGCAGAAACGAGAAAAGGCTGCTACCCTGAAAAGGAA  
GTGGCCGGGTTGCGGGAGAAGATCCACCACTTGGATGACATGCTCAAGAGCCAGCAGCGGAAAGTCCGGC  
AAATGATAGAGCAGTCCAGAATTCAAAAGCTGTGATCCAGTCAAAGGACGCCACCATCCAGGAGCTCAA  
GGAGAAAATCGCCTATCTGGAGGCAGAGAAATTTAGAGATGCATGACCGGATGGAACACCTGATAGAAAA  
CAAATCAGTCATGGCAACTTCAGCACCCAGGCCCGGGCCAAGACAGAGAAACCCGGGCAGTATTAGGATAT  
CCAAGCCGCTAGCCGAAGCCCATGCCTGTCATCCGAGTGGTGGAAACC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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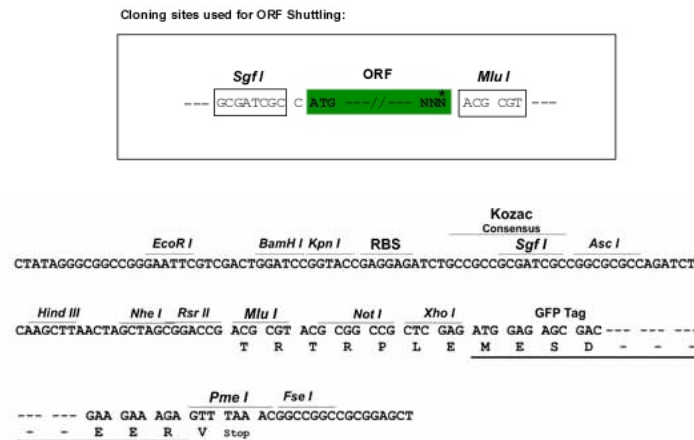
**Protein Sequence:** >RG203420 representing NM\_020127  
Red=Cloning site Green=Tags(s)

MNGTRNWCTLVDVHPEDQAAGSVDILRLTLQGELTGDELEHIAQKAGRKTYAMVSSHSAGHSLASELVES  
 HDGHEEIIKVVYLKGRSGDKMIHEKNINQLKSEVQYIQEARNCLQKLREDISSKLDRLGDSLHRQEIQVV  
 LEKPNGFSQSPTALYSSPPEVDTCINEDVESLRKTVQDLLAKLQEAQRQHQSDCVAFEVTLSTRYQREAEQ  
 SNVALQREEDRVEQKEAEVGEVLRRLGMETEHQALLAKVREGEVALEELRSNNADCQAEREKAATLEKE  
 VAGLREKIHLLDMLKSSQQRKVRQMIQEQNSKAVIQSKDATIQELKEKIAYLEAENLEMHDRMEHLIEK  
 QISHGNFSTQARAKTENPGSIRISKPPSPKMPVIRVVET

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_020127

**ORF Size:** 1170 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\\_020127.3](#)

**RefSeq Size:** 3125 bp

**RefSeq ORF:** 1173 bp

**Locus ID:** 7286

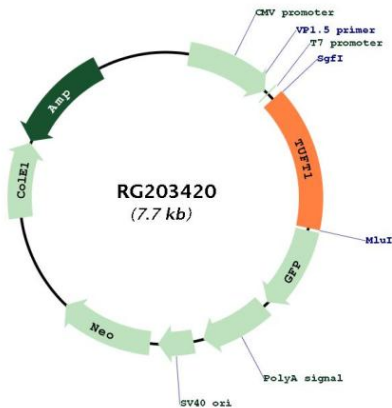
**UniProt ID:** [Q9NNX1](#)

**Cytogenetics:** 1q21.3

**Protein Families:** Secreted Protein

**Gene Summary:** Tuftelin is an acidic protein that is thought to play a role in dental enamel mineralization and is implicated in caries susceptibility. It is also thought to be involved with adaptation to hypoxia, mesenchymal stem cell function, and neurotrophin nerve growth factor mediated neuronal differentiation. [provided by RefSeq, Aug 2014]

**Product images:**



Circular map for RG203420