

Product datasheet for **RG230817**

beta III Tubulin (TUBB3) (NM_001197181) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	beta III Tubulin (TUBB3) (NM_001197181) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TUBB3
Synonyms:	beta-4; CDCBM; CDCBM1; CFEOM3; CFEOM3A; FEOM3; TUBB4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG230817 representing NM_001197181
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGGAGATCGTGCACATCCAGGCCGGCCAGTGCGCCAACAGATCGGGGCCAAGTTCTGGGAAGTCA
 TCAGTGATGAGCATGGCATCGACCCAGCGGCAACTACGTGGGCGACTCGGACTTGCAGCTGGAGCGGAT
 CAGCGTCTACTACAACGAGGCCCTTCTCACAAGTACGTGCCTCGAGCCATTCTGGTGGACCTGGAACCC
 GGAACCATGGACAGTGTCCGCTCAGGGGCCCTTGGACATCTTTCAGGCCTGACAATTTTCATCTTTGGTC
 AGAGTGGGGCCGCAACAACCTGGGCCAAGGGTCACTACACGGAGGGGGCGGAGCTGGTGGATTCCGTCT
 GGATGTGGTGGGAAGGAGTGTGAAAACGCGACTGCCTGCAGGGCTTCCAGCTGACCCACTCGTGGGG
 GGGCCACGGGCTCCGGCATGGCACGTTGCTCATCAGCAAGGTGCGTGAGGAGTATCCCGACCGCATCA
 TGAACACCTTCAGCGTCTGCCCTCACCAAGGTGTCAGACACGGTGGTGGAGCCCTACAACGCCACGCT
 GTCATCCACCAGCTGGTGGAGAACACGGATGAGACCTACTGCATCGACAACGAGGCGCTCTACGACATC
 TGCTTCCGCACCCTCAAGCTGGCCACGCCACCTACGGGGACCTCAACCACCTGGTATCGGCCACCATGA
 GCGGAGTACCACCTCCTTGCCTTCCCGGCCAGCTCAACGCTGACCTGCGCAAGCTGGCCGCTCAACAT
 GGTGCCCTTCCCGCCCTGCACTTCTTCATGCCCGGCTTCGCCCCCTCACAGCCCGGGGACCCAGCAG
 TACCGGGCCCTGACCGTGCCTGAGCTCACCCAGCAGATGTTTCGATGCCAAGAACATGATGGCCGCTGCG
 ACCCGCCACCGCCGCTACCTGACGGTGGCCACCGTGTTCGGGGCCGATGTCATGAAGGAGGTGGA
 CGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACACGTGAAG
 GTGGCCGTGTGTGACATCCCGCCCCGCGCCTCAAGATGTCTCCACCTTCATCGGGAACAGCACGGCCA
 TCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCCGCAAGGCCCTCCTGCCTG
 GTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCC
 GAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGGAGGAGT
 CGGAGGCCACGGGCCCAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG230817 representing NM_001197181
 Red=Cloning site Green=Tags(s)

MREIVHIQAGQCGNQIGAKFWEVISDEHGDPSGNYVGDSDLQLERISVYYNEASSHKYVPRAILVDLEP
 GTMDSVRSAGFGHLFRPDNFIQSGAGNNWAKGHYTEGAELVDSVLDVVRKECENCDCQLQGFQTHSLG
 GGTGSGMGTLLISKVREEYPDRIMNTFSVVPSPKVSDDTVEPYNATLSIHQLVENTDETYCIDNEALYDI
 CFRTLKLATPTYGDLNHLVSATMSGVTTSLRFPQGLNADLRKLAVNMPFPRLHFFMPGFAPLTARGSQQ
 YRALTVPELTQQMFDANKMMAACDPRHGRYLTVATVFRGRMSMKEVDEQMLAIQSKNSSYFVEWIPNNVK
 VAVCDIIPRGLKMSSTFIGNSTAIQELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVS
 EYQYQDATAEEEGEMYEDDEESEAQGPK

TRTRPLE - GFP Tag - V

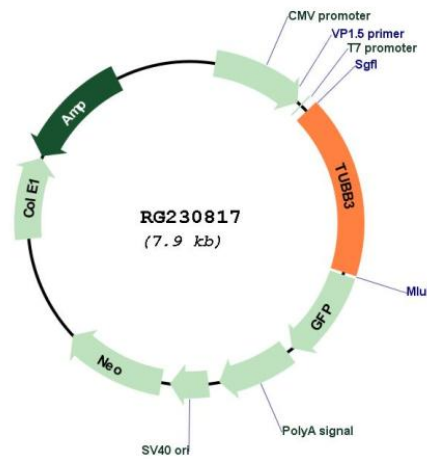
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001197181

ORF Size: 1353 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:	<ol style="list-style-type: none">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:	<u>NM_001197181.1, NP_001184110.1</u>
RefSeq Size:	1851 bp
RefSeq ORF:	1137 bp
Locus ID:	10381
UniProt ID:	<u>Q13509</u>
Cytogenetics:	16q24.3
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS
Protein Pathways:	Gap junction, Pathogenic Escherichia coli infection
Gene Summary:	This gene encodes a class III member of the beta tubulin protein family. Beta tubulins are one of two core protein families (alpha and beta tubulins) that heterodimerize and assemble to form microtubules. This protein is primarily expressed in neurons and may be involved in neurogenesis and axon guidance and maintenance. Mutations in this gene are the cause of congenital fibrosis of the extraocular muscles type 3. Alternate splicing results in multiple transcript variants. A pseudogene of this gene is found on chromosome 6. [provided by RefSeq, Oct 2010]