

Product datasheet for **RC203945**

beta IV Tubulin (TUBB4A) (NM_006087) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	beta IV Tubulin (TUBB4A) (NM_006087) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	beta IV Tubulin
Synonyms:	beta-5; DYT4; TUBB4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC203945 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATCGGGGAGATCGTGCACCTGCAGGCCGCCAGTGCGCCAACAGATCGGGGCCAAGTTTTGGGAGTTA
 TCAGTGACGAACATGGCATCGACCCACAGGCACATACCATGGGACAGTGACCTGCAACTGGAGAGGAT
 CAACGTGTACTACAACGAGGCCACAGGAGAAATTATGTCCCAGAGCGGTGCTGGTGGACCTGGAACCC
 GGCACCATGGACTCTGTCCGTTCTGGCCCTTCGGTCAGATCTTTCGGCCGGACAACCTCGTGTGGCC
 AATCCGGAGCCGCAACAACCTGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACGCTGTCT
 GGACGTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCTTCAGGGCTTCAGCTGACCCACTCGTGGGG
 GGTGGCACGGGGTCCGAATGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTCCCAGACCCGATCA
 TGAACACCTTCAGCGTGGTGCCTCGCCAAAGTGTGAGACACGGTGGTGGAGCCCTACAACGCCACGCT
 GTCTGTGCACAGCTGGTGGAGAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATC
 TGTTTCCGCACCCTCAAGCTGACCACCCACCTACGGGGACCTCAACCACCTGGTGTGGCCACCATGA
 GCGGGGTACACCTGCCTGCGCTTCCCGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCACAT
 GGTTCCTTTCTCGCTGCACTTCTTCATGCCCGGCTTCGCACCCTGACCAGCCGGGGCAGCCAGCAG
 TACCGGGCCCTGACGGTGCCTGAGCTACCCAGCAGATGTTTCGATGCCAAGAACATGATGGCGGCGTGCG
 ACCCGCCGACCGCCGCTACCTGACCGTGGCCGCGTGTCCGGGGCCGATGTCATGAAGGAGGTGGA
 CGAGCAGATGCTGAGCGTGACAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACACGTGAAG
 ACGGCCGTGTGCGACATCCCGCCCGCGCCTGAAGATGGCCGCGACCTTCATCGGCAACAGCACGGCCA
 TCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCTTACTG
 GTACACGGGCGAGGGCATGGACGAGATGGAGTTACCGAGGCCGAGAGCAACATGAATGACCTGGTATCT
 GAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAGGGCGAGTTCGAGGAGGAGGCGAGGAGGAGGTGG
 CC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203945 protein sequence
 Red=Cloning site Green=Tags(s)

MREIVHLQAGQCQNGIGAKFWEVISDEHGIDPTGTYHGDSLQLERINVYNEATGGNYVPRAVLVDLEP
 GTMDSVRSQPFQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVLDVVRKEAESCDCLQGFQLTHSLG
 GGTGSGMGTLLISKIREEFDRIMNTFSVVPSPKVSQTVVEPYNATLSVHQLVENTDETYCIDNEALYDI
 CFRTLKLTPTTYGDLNHLVSATMSGVTTCLRFPGQLNADLRKLA VNMVFPRLHFFMPGFAPLTSRGSQQ
 YRALTVPELTQQMFDKNNMAACDRHGRYLTVA AVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVK
 TAVCDIPRGLKMAATFIGNSTAIQELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVS
 EYQYQDATAEEGEFEEEEEEVA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6197_h05.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_006087

ORF Size: 1332 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_006087.4](#)

RefSeq Size: 2583 bp

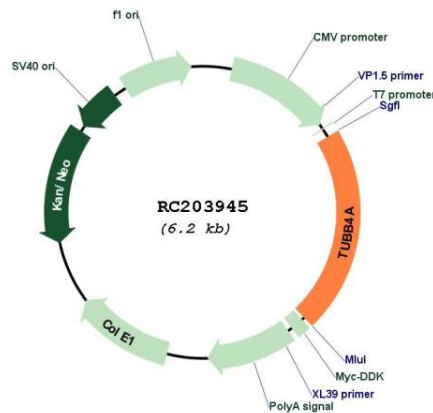
RefSeq ORF: 1335 bp

Locus ID: 10382

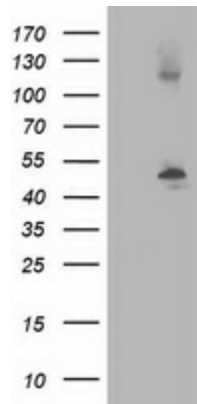
UniProt ID: [P04350](#)
Cytogenetics: 19p13.3
Domains: tubulin
Protein Families: Druggable Genome
Protein Pathways: Gap junction, Pathogenic Escherichia coli infection
MW: 49.6 kDa

Gene Summary: This gene encodes a member of the beta tubulin family. Beta tubulins are one of two core protein families (alpha and beta tubulins) that heterodimerize and assemble to form microtubules. Mutations in this gene cause hypomyelinating leukodystrophy-6 and autosomal dominant torsion dystonia-4. Alternate splicing results in multiple transcript variants encoding different isoforms. A pseudogene of this gene is found on chromosome X. [provided by RefSeq, Jan 2014]

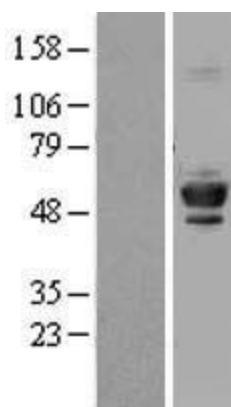
Product images:



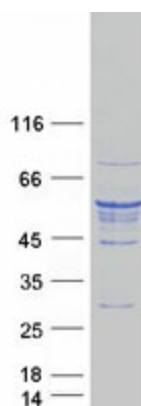
Circular map for RC203945



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TUBB4 (Cat# RC203945, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TUBB4 (Cat# [TA502962]). Positive lysates [LY401833] (100ug) and [LC401833] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401833]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203945 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TUBB4A protein (Cat# [TP303945]). The protein was produced from HEK293T cells transfected with TUBB4A cDNA clone (Cat# RC203945) using MegaTran 2.0 (Cat# [TT210002]).