

## Product datasheet for MR211540

### Bub1b (NM\_009773) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Bub1b (NM\_009773) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Bub1b  
**Synonyms:** AU045529; BUBR1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR211540 representing NM\_009773  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCGGAGGCGAGTGAAGCCATGTGCCTGGAGGGAGCAGAGTGGGAGCTGAGTAAAGAAAACATACAGC  
 CCTTACGGCACGGGCGGGTCATGTCCACACTTCAGGGAGCTTTGGCAAAGCAAGAGTCAGCCGGCCACAC  
 TGCTCTGCAGCAGCAGAAACGGGCATTTGAATCTGAAATCCGCTTTTACTCTGGAGATGACCCTCTGGAT  
 GTGTGGGACAGATATATTAATTGGACAGAACAGAACTACCCTCAAGGGGGAAAGAGAGTAAATGTCAG  
 CGTTAGTGGAGAGAGCGATAGAAGCACTCAAGGAGAGACGCGCTATTATAATGACCCCCGCTTTCTCAG  
 TCTCTGGATCAAATTGGGACATTTGTGCAATGAACCTTTGGATATGTACAGCTATTTACAAAGCCAAGGA  
 ATTGGCGTTTTCCCTTGCCAGTTCTATATTTTCATGGGCTGAAGAATACGAAGCTAGAGAAAATTTCAAGA  
 AAGCGGACATAATATCCAGGAAGGGATTGAACGCAAGGCTGAGCCCCTGGACAGACTGCAGTCCCAGCA  
 CAGACAGTTCCAGTCTCGAGTGTGCGGACAAGCTTTCTTGGCCCTTGGGAATGAAGAGGAGGAGGCTTTG  
 GAGCCTTCTGAACCACAGAGAAGCTCGCTAGCTGAGCTGAAGAGCAGAGGGAAAGAAGATGGCCAGAGCGC  
 CCATCAGCCGTGTCGGAGGTGCTCTGAAAGCTCCAGGTGAGAGCAGAGGGTTCTAAATGCAGTTCCCCA  
 GCCAGTACACGGTAATCGCAGGATCACCGTTTTTGTGATGAAAATGCCGATACCCGCTCTAGAACGGAGTTA  
 TCTAAGCCTGTAGCCAGCCATGGATGGCACCCCCTGTGCCAGGGCCAAAGAGAACGAACCTCAGCCCA  
 GCCCATGGAGCACAGACAGGCCCGGGGACGCGAGGCCTCATGACAATCCAGCCTCTGTGACGTCGATTCC  
 CAGCGTGCTTCCAGCTTACGCGGTACGTGGAAGAGAGCGCCAGCAGACAGTCAAGACCATGCAAG  
 ATTGAGCCTAGTATCAACCATGTTCTCAGCACCAGGAAGCCAGGGAGAGAAGAAGGAGACCCCTTGCA  
 GAGTTCAGAGTCAATCAGCAAGGCTGTGAGGAGAAGAAGGAGAAGATGATGTACTGTAAGGAGAAGATCTA  
 TGCCGGAGTTGGGGAGTTCTCCTTTGAGGAGATCCGAGCTGAAGTGTCCGAAAGAAGCTGAAAGAACGA  
 AGGGAAGCCGAGCTGTTGACCAGTGCAAGAAGAGGGAGGAGATGCAGAAGCAGATCGAAGAGATGGAGA  
 GGAGGCTGAAGGCAATGCAGGCTGTTGAGCAAGAAGAGCTGGGGCCAGCAAGAAGAGAAGATGCCTAC  
 AGAGGACCCAGCCAGATTGCAGATTGCTTCGGGGCCTCAGAAAATGTCGGGAGTTCTCTGCTGCTGTTCC



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ATCTGTCCAATAAGCTCGAATCCTAGGGAAATTTACCTGCTGAGAACATTTTGCAAGAACAGCCTGATT  
 CTAAGGTTCCAGTATGCCTTTCTCCATTTTGTAGTCTCTTTTCAGACAAAAGGACAAAAGTCTGCTG  
 TACAGGTGGTCCACAGGTTCTCAATGCCAGAGAAGACCCTTTTCAGTTCTAAAACACAGAAGTGGGC  
 ACCACAATGAGGATGTGTCTCCCGATATTTGTGATGAACTCACAGAAGTGGAGCCTCTGAGTGAAGACG  
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 CTGTTGCAGGAAGAGGATCTGGATGGGAAGGCCGCCAGGCTCATCACACTGTTTCATCACCAGGCCCTCA  
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 TGGGTGGCACCAAGAAGCTCTGCAGAGTAACCATGATAAAGGCATCATCTCAGCCTATCCCGTGGGATT  
 TTTATATCAACCTCAAGTTGAAGGAGCGTCTGAATGAGGACTATGACCAGCTTTGCAGCTGCTGTCAGTA  
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 GAATTTGTTACTCATGAATAATAGTGTGATTATTTACAACCTTTGACAATCGTGGAGAAGCTACACA  
 GAGCTGAAATAGTACACGGAGACTTGAATCCACGGAGTCTGATCCTACGAAAACAGAAATCCACGACCCCTA  
 TGACTATGTAATAAGGACGATCACGCTGTGAGGATCATGGACTTCTCCTACAGTGTGACCTGAGGGTG  
 CAGCTGGATGCGTTTGCCTATAGTGGCTTTTCGGACTGCACAGATCCTGGAAGGACAAAAGATCCTGGCTA  
 ACTGTTCTTCTCCCTACCATGTAGATCTGTTGGGTATAGCAGACCTAGCGCACTTACTCTGTTCAGGA  
 GCACCTCCATGTCTTCTGGGATGGACTCCTCTGGAACCTTAGCCAGAGCACCTCTGAGCTAAAAGACAGT  
 GAATTGTGGAATAAATCTTTGTGCGGATTCTGAATGCCAGTACAAGTCCACAGTGTCTGTTCTGGGGG  
 AGCTGGCAGCAGAAATGGGTGGGGCTTTTGTATGCCACATTCATAGCCACCTGAACAGAGCCCTGTGGAA  
 GCTGGGGGAAGACAATCAGCCCGAAGCTTTGCTCACTCAGCAAGACAAGCAGCCAGGCGGCTCCAGAGC  
 CTGCC

ACGCGTACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR211540 representing NM\_009773  
 Red=Cloning site Green=Tags(s)

MAEASEAMCLEGAEWELSKENIQPLRHGRVMSLQGALAKQESAGHTALQQKRAFESSEIRFYSGDDPLD  
 VWDYINWTEQNYPPQGGKESNMSALVERAIEALQGETRYNDPRFLSLWIKLGHLCNEPLDMYSYLSQSG  
 IGVSLAQFYISWAEYEARENFKKADIIHQEGIERKAEPDLRLQSQHRQFQSRVSRQAFALGNEEEAL  
 EPSEPQRSSLAELKSRGKMARAPISRVGGALKAPGQSRGFLNAVQPVHGNRRITVFDENADTASRTEL  
 SKPVAQPWMPVPRAKENELQPGPWSTDRPAGRRPHDNPASVTSIPSVLPSFTPYVEESAQQTVMTPK  
 IEP SINHLVSTRKPGREEDPLQRVQSHQGCCEKKEKMMYCKEKIYAGVGEFSFEEIRAEVFRKLLKER  
 REAELLTSAKKREEMQKQIEEMERRLKAMQAVQQEGAGGQEEKMPTEPARLQIASGPQEMSGVPLSCS  
 ICPLSSNPREISPAENILQE QPDSKGSMPFSIFDESLSDKDKSPATGGPQVLNAQRRPLSVLKTTEVG  
 TTNEDVSPDICDELTELEPLSEDAIITGFRNVTLCPNPEDTCDFAARAARLASTPFHEILSSKGIAADPEG  
 LLQEEDLDGKAAEAHHTVHHQALIIKKLSPIIEESREATHSSGFSRSSSSAPSTSSIKGFQLEKLEL TN  
 DGAEDIAQSPWCSQYRLQLLKSLELSAFAEFSVEDRPMPLVLEIGKEIELGPEDYVIKQEHLCDDYRLF  
 WVAPRSSAELTMIKASSQPIPWDFYINLKLKERLNEDYDQLSCCCQYQDGHVVVYQYINCSTLQNLQHS  
 EFVTHEIIVLIIYNLLTIVEKLHRAEIVHGDLSPRSLILRNRIHDPYDYVNKDDHAVRIMDFSYSVDLRV  
 QLDAFAYSGFRTAQIILEGQKILANCSSPYHVDLLGIADLAHLLLFKEHLHVFWDGLLWKLQSTSELKDS  
 ELWNKFFVRILNASDKSTVSVLGELAAEMGGAFDATFHSHLNRALWKLGKTI SPEALLTQQDKQPGGSQS  
 PA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9009\\_b08.zip](https://cdn.origene.com/chromatograms/mm9009_b08.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_009773

ORF Size: 3156 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\\_009773.3](#), [NP\\_033903.2](#)

RefSeq Size: 3669 bp

RefSeq ORF: 3159 bp

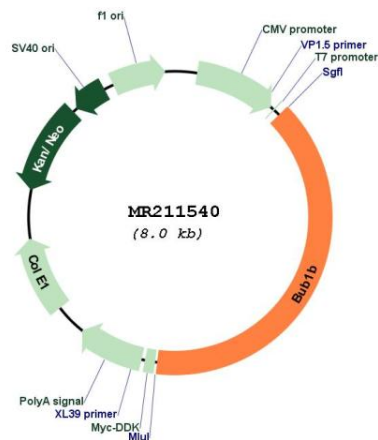
Locus ID: 12236

UniProt ID: [Q9Z1S0](#)

**Cytogenetics:** 2 E5  
**MW:** 118.8 kDa

**Gene Summary:** Essential component of the mitotic checkpoint. Required for normal mitosis progression and tumor suppression. The mitotic checkpoint delays anaphase until all chromosomes are properly attached to the mitotic spindle. One of its checkpoint functions is to inhibit the activity of the anaphase-promoting complex/cyclosome (APC/C) by blocking the binding of CDC20 to APC/C, independently of its kinase activity. The other is to monitor kinetochore activities that depend on the kinetochore motor CENPE. Required for kinetochore localization of CENPE. Negatively regulates PLK1 activity in interphase cells and suppresses centrosome amplification. Also implicated in triggering apoptosis in polyploid cells that exit aberrantly from mitotic arrest. Essential for tumor suppression. May play a role in regulating aging and fertility (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR211540