

## Product datasheet for **MG218953**

### Casc3 (NM\_138660) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Casc3 (NM_138660) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Casc3
Synonyms:	Btz; Mln51
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MG218953 representing NM\_138660  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGACCGCGCGCGCAGCGCCTCCAGGACACGGAGGACGAGGAATCCGGGGCTTCGGGTCCG  
 ACAGCGGCTCTCCGGCGCGGGCGCGGAGCTGCAGCGGGAGCGTCGGAGGCGCGGCAGTGGCTCGCT  
 GCCTTCTCAGCGCGCGCGCCGCGCGGGGCTTCACCTGCGCGGGTGGAGAGCGGGGCGCAAGAGC  
 GCCGAGGAGTCTGAGTGTGAGAGTGAAGATGGCATGGAAGGAGATGCTGTTCTTTCCGATTATGAAAGT  
 CAGAAGATTCAGAAGGTGAAGAAGACTACAGTGAAGAGGAGAATCCAAGGTGGAGCTGAAATCAGAAGC  
 TAACGATGCTGCTGATTCCTCTGCGAAAAGAAAAGGAGAGGAAAAGCCTGAGTCTAAAGGCACGGTGACT  
 GGGGAGAGGCAGAGCGCGATGGCAGGAGAGCACAGAGCCTGTGGAGAACAAAGTGGGAAAAAAGGCC  
 CTAAGCACTTGGATGACGATGAGGATCGGAAAAACCCAGCCTACATCCCCAGGAAAGGGCTTCTTTGA  
 GCACGATCTTCGAGGACAGACTCAGGAGGAGGAAGTCCGACCCAAGGGACGGCAGCGAAAGCTATGGAAA  
 GATGAGGGTTCGCTGGGAACATGATAAGTTCCGTGAGGATGAACAGGCCCGGAAATCTCGGACGAGCTAA  
 TTGCATTTATGGTTATGACATTCGGTCTGCTCAAACTCCTGATGACATCAAACCCGAAGAATCCGGAA  
 ACCTCGATTTGGAAGTTCACCAAAAGAGATCCAACTGGATTGGTGATCGATCAAGCAATCCCATCGC  
 CACCAGGGTCTGGGGCAATCTACCACCTAGGACATTTATTAACAGGAACACGGCAGGACTGGCCGCA  
 TGTCTGCATCCAGGAATTACTCTCGATCTGGGGCTTCAAGGATGGCCGCACTAGTTTACGGCTGTGGA  
 GGTTGCTGGGCAGCATGGTGGCCGTCTGCTGAGACTCTTAAGCATGAAGCTAGTTACGGTACGGCGT  
 CTAGAGCAGACTCCTGTGAGGGATCCATCTCCAGAGCCAGATGCTCCATTGCTTGAAGTCTGAGAAA  
 AAGAGGTGGCCTCAGAGACGCCAGCTGCTGTACCCGACATCACCCACCAGCTCCTGACAGGCCATTGA  
 GAAGAAGTCTATTCCCGGGCAAGAAGGACCAGGACCAAAGTTGGGGATGCAGTCAAAGCTGCTGAGGAG  
 GTTCTCTCCATCTGAAGGGCTGGCCTCAACAGCCACAGTCCCCGAAACGACTCCAGCTGCTAAGACTG  
 GAACTGGGAGGCTCCAGTAGACTCTACCACAGGTGGACTTGAGCAAGATGTGGCGCAGTAAATATAGC  
 AGAACAAAGTTGGAGTCCAAGCCAGCCTTATTCTTGCAGCCACGGAACTTCGAGGTGTGCCTAACCC  
 ATCCACATGGGAGCAGGACCCCCACCTCAGTTAAACCGGATGGAAGAAATGGGCGTCCAGAGTGGTCGAG  
 CTAAGCGTTACTCATCCAGCGGCAGAGACCTGTGCCAGAGCCCCCTGCTCCTCTGTGCATATCAGTAT  
 CATGGAGGACATTACTATGATCCATTGCAGTTCAGGGACCAATCTATACCCATGGTGACAGCCCTGCC  
 CCACTGCCCCACAGGGCATGATCGTACAGCCGAAATGCACCTCCCCACCCAGGTTTACATCCCCACC  
 AGTCACCAGGACCTCTGCCAACCCTGGTCTCTACCCACCACAGTGTCCATGTCCCCAGGACAGCCACC  
 GCCCCAGCAACTGCTTGCTCCTACCTACTTTTCTGCTCCGGGTGTCATGAATTTGGTAACCCCAATTAC  
 CCTTATGCTCCGGGAGCATTGCCACCTCCTCCACCTCCTCATCTGTATCCTAACACGCAGGCTCCACCAC  
 AGGTGTATGGAGGAGTGACTTACTATAACCCCGCCAGCAGGTCAGCCCAAGCCCTCCCCACCCCG  
 GAGGACTCCCCAGCCGTCTCCATCAAGCCCCCCCCACCTGAGGTTGTAAGCAGGGGTTCCAGT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG218953 representing NM\_138660  
 Red=Cloning site Green=Tags(s)

MADRRRQRASQDTEDEESGASGSDSGSPARGGGSCSGSVGGGGSGSLPSQRGGRGGGLHLRRVESGGAKS  
 AEESECESEDGMEGDAVLSDYESAEDSEGEEDYSEEENSKVELKSEANDAADSSAKEKGEKPEKGTVT  
 GERQSGDGQESTEPVENKVGKKGPKHLDDDEDKKNPAYIPRKGLFFEHLRGQTQEEVVRPKGRQKRLWK  
 DEGRWEHDKFREDEQAPKSRQELIALYGYDIRSAHNPDIDKPRRIRKPRFGSSPQRDPNWIHDRSSKSHR  
 HQGPGGNLPPRTFINRNTAGTGRMSASRNYSRSGGFKDGRTSFRPVEVAGQHGGSAETLKHEASYSRR  
 LEQTPVRDPSPEDAPLLGSPEKEEVASETPAAVDPDITPPAPDRPIEKKSYSRARRTRTKVGDVAKAAEE  
 VPPPSEGLASTATVPETTPAAKTGNWEAPVDSTTGGLEQDVAQLNIAEQSWSPSQPSFLQPRELRGVPNH  
 IHMGAGPPPQFNMEEMGVQSGRAKRYSSQRQRPVPEPPAPPVHISIMEGHYYDPLQFQGPITYTHGDSPA  
 PLPPQGMIVQPEMHLPHPLHPHQSPGLPNPGLYPPPVSMSPGQPPPQQLLAPTYFSAPGVMNFGPNPY  
 PYAPGALPPPPPHLYPNTQAPPQVYGGVYYNPAQQQVQPKSPPRRTPQPVSIKPPPEVVSRRGSS

TRTRPLE - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_138660

**ORF Size:** 2094 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_138660.2](#), [NP\\_619601.2](#)

**RefSeq Size:** 3764 bp

**RefSeq ORF:** 2097 bp

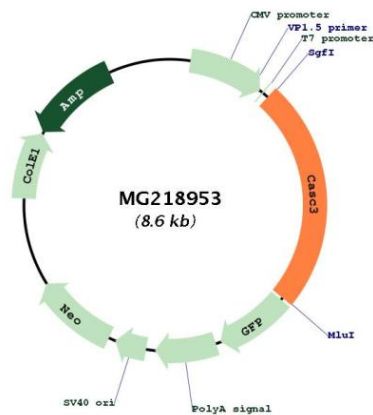
**Locus ID:** 192160

**UniProt ID:** [Q8K3W3](#)

**Cytogenetics:** 11 D

**Gene Summary:**

Required for pre-mRNA splicing as component of the spliceosome. Core component of the splicing-dependent multiprotein exon junction complex (EJC) deposited at splice junctions on mRNAs. The EJC is a dynamic structure consisting of core proteins and several peripheral nuclear and cytoplasmic associated factors that join the complex only transiently either during EJC assembly or during subsequent mRNA metabolism. The EJC marks the position of the exon-exon junction in the mature mRNA for the gene expression machinery and the core components remain bound to spliced mRNAs throughout all stages of mRNA metabolism thereby influencing downstream processes including nuclear mRNA export, subcellular mRNA localization, translation efficiency and nonsense-mediated mRNA decay (NMD). Stimulates the ATPase and RNA-helicase activities of EIF4A3. Plays a role in the stress response by participating in cytoplasmic stress granules assembly and by favoring cell recovery following stress. Component of the dendritic ribonucleoprotein particles (RNPs) in hippocampal neurons. May play a role in mRNA transport. Binds spliced mRNA in sequence-independent manner, 20-24 nucleotides upstream of mRNA exon-exon junctions. Binds poly(G) and poly(U) RNA homopolymer.[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MG218953