

Product datasheet for **MG218603**

Cdk12 (NM_001109626) Mouse Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Cdk12 (NM_001109626) Mouse Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Cdk12 |
| Synonyms: | 1810022J16Rik; A1646528; Crk7; Crkrs; D11Ert752e; Pksc |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >MG218603 representing NM_001109626 Red=Cloning site Blue=ORF Green=Tags(s) |

GACGTTGTATACGACTCCTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGGCGGCC

ATGCCCAATTCGAGAGACATGGGGCAAGAAGGACGGGAGCGGAGGAGCTTCTGGAACCTCGCAGCCGT
CATCGGGAGGTGGCAGCTCCAACAGCAGGGAGCGTCACCGCTTGGTGTGCAAGCACAAGCGGCATAAGTC
CAAGCACTCCAAAGACGTGGGGCTGGTGACCCCGAAGCGGCATCTTTGGGTACCATAATCAAACCACTG
GTGGAGTACGATGACATCAGCTCTGATTCAGACACCTTCTCCGATGACACGGCCTTCAAATCAGACCGGA
GGGAGAACGAGGAACGTGGGGAACGGATCGGAGCGATCGCTGCACCGACATCGTCACCACCAGCACCG
GCGGTCCCGAGACTTGCTAAAACTAAACAGACGAAAAGGAAAAAATCAGGAAGTCTCCAATCTGGA
TCTATGAAGGACCGGTATCGGGCAGTTCCAAACGGTCCGTGGAGGGGAGTGATGATTATGGGAAGGCC
AGCTATCCAAAGCGGCAGCAAGGAATCCAGGTCGTCCAAATGCACAAGGAGAAGACCCGAAAGAGCG
AGAGTTAAAGTCTGGATACAAGGACCGGAGTAAAAGTCATCGGAAAAGGGAAACACCCAAAAGTTACAAA
ACCGTGGCTAGCCCTAACCGGAGATCCAGGAGTCCCATAGGAAATGGTCTGACAGTTCCAAGCAAGATG
ACAGCCCTTCCGGAGCTTCTTATGGCCAAGACTACGATCTTAGCCCCCAAGGTCTCACACTTCTAGCAA
CTATGACTCCTACAAGAAGAGTCTGGAAGTACCTCAAGAAGGCAGTCAATCAGCCCACCTTACAAGAG
CCTTCTGCTTACCAGTCCAGCACTCGGTACCCAGTCTTACAGCCGACGACAGAGTCTGTGAGTCCCT
ATAGCCGGAGACGGTCTCCAGCTATGAAAGGAGCGGCTTACAGCGGGAGATCACCCAGCCCTATGG
CCGAAGGCGATCAAGCAGCCCTTCTGAGCAAGAGGTCTCTGAGTGGAGTCCACTCCCAAGTAGGAAA
TCCATGAAGTCCAGAAGTAGAAGTCTGCATATTCAGACACTCATCTTCTCATAGTAAAAAGAAGCGAT
CCGGGTACGCAGTGTGATTCAGTATCTCACCTGTGAGGCTTCCATTGAATCCAGCCTGGGAGCTGA
ACTCAGTAGAAAAAGAAGGAAAGAGCAGCAGTGTGTCAGCAGCAAAAATGGATGGAAAAGAGTCCAAG
AGTTCACCTATAATTTTGCCTAAAAAGAGAACTTGAGGTGAAGGAGTCAGGGTTAGAGTCTAAAAAGT
TACCCAGAAGTATAAAATCAGAAAAATCGACCCAGATACTGAACTGGTACTGTAGCACATTCAAACCC
AGAGGTAACATTGTTTAGACACAGGGAAGGTTAGGTTGGATGAGAAGTTCAGAAAGCATCCTGCTAAG



[View online »](#)

GATTTGAAAGCACAGGGAACAAAGGACGTTAAACCTGTAGCACCGAAAGAGGTGATTGTTACTTCAAAGG
AGACAGAGACATCAGAAAAGGAGACCCTTCCACCTCTTCCACAATTACTTCTCCACCCCTTTACCAGC
TACTACCCTCCACCTCAGACACCCCTTTGCCACCTTGGCTCCACTACCAGCTATTCCGCTGCAGCCA
CCTCTGCCTCCTCCCAACCACCATTTAGTCAAGTTCCTGTTTCAAGTACTTCAATTTTACCCTCTTCTC
CTCACCAAGGACATCTACTCTATCCTCTCAGACAAATTTCTAGCCCCCTGTACAGGTTTCTATGAAGAC
TCAAGTATCTATAACAGCTGCTATTCCACATCTGAAGACTTCAACATTGCCTCCTCTGCCCTCCCTCCC
CTATTACCTGGAGATGATGACATGGATAGTCCAAAAGAAACACTTCTTCAAAGCCTGCAAAGAAAGAGA
AGGAACAGAGGACTCGCCACTTGGTTACAGACTTGCCTCTTCTCTGAGCTACCAGGAGGATCCATC
GCCTCCAGATTCTCCAGAGCCAAAGGCAATTACACCACCTCAACAACCATATAAAAAGAGACCAAAAATT
TGTTGTCCACGTTATGGAGAAAAGACAAAACAGAAAGTATTGGGGGAAGCGCTGTGTGGACAAGTTTG
ACATTATTGGGATTATTGGAGAGGGGACCTATGGCCAAGTATAAAGCCAAGGACAAAGACACAGGAGA
ACTAGTAGCTCTGAAGAAGGTTCCGGCTGGACAATGAGAAAAGGGCTTCCAATCACAGCCATCCGGGAG
ATCAAGATTCTTCGTCATTTAGTTCACCAGAGTGTGTAACATGAAGGAAATTGTCACAGACAAACAAG
ATGCAGTGGATTTCAAGAAGGACAAAGGTGCCTTTTACCTTGTATTTGAATATATGGACCATGACTTAAT
GGGACTGCTTGAATCAGGTTTGGTGCATTTTCTGAGGACCATATCAAGTCATTTATGAAACAGCTAATG
GAAGGACTGGATTACTGTCAAAAAGAATTTCTCCATCGGGATTAATGTTCTAACATTTTGCCTGA
ATAACAGCGGGCAAATCAAAGTGGCAGATTTTGGACTTGCCTCGGCTCTATAACTCTGAAGAGAGTGC
TTACACAAAACAAAGTCACTCTTTGGTATCGACCTCCAGAGCTTCTTCTGGAGAGGAAAGATACACA
CCAGCCATTGATGTTTGGAGCTGTGGGTGCATCCTTGGAGAACTGTTCAAAAAGAAACCTATTTTCAAG
CCAATTTAGAAGTGGCTCAGCTAGAAGTATCAGTCGCTCTGTGGTAGTCTTGTCCAGCAGTGTGGCC
TGATGTTATCAAGCTGCCTACTTCAACACCATGAAACCGAAGAAGCAATACAGGAGACGCTAAGAGAA
GAATTCCTTTTCAATCCTTCCAGCGGCACTTGTCTATTGGACCACATGCTGACACTGGATCCTAGCAAGA
GGTGCACAGCTGAACAGACCCTACAGAGTACTTCTTAAAGATGTGAACTCAGCAAAAATGGCACCTCC
AGACCTACCTCACTGGCAGGATTGCCATGAATTTGGAGTAAGAAACGTCGACGGCAGCAGAGTGGT
ATTGTGATAGAAGATCCACCTCCGTCCAAAGCTTCTAGAAAAGAACTACCTCAGGGACAACAGCTGAGC
CTGTGAAAAACAATAGCCAGCACCACCTCAGCCTGCTCCTGTCAAGGCAGAGCCTGGTCCAGGGGATGC
AGTAGGCCTTGGTGACATCACACAGCAGTTGAATCAAAGTGAATTGGCAGTGTTATTAACCTGCTTCAG
AGCCAAACTGACCTGAGCATCCCTCAGATGGCACAGCTGCTTAATATCCACTCCAATCCAGAGATGCAAC
AGCAGCTTGAAGCCTTGAATCAGTCTATTAGTGCAGTACTGAAGCCAGTCCCAGCAGCAGGACTCAGA
ATCCATAGCCCTGAAGAATCATTGAAGGAGGTACCTTCTGTACCTGTGGTCTGCCTCCTGCTGAACAG
ACAACCTCTGAAGCTTCAAACACACCAGCTGACATGCAGAATGTGTTGGCAGTCTCTTGTAGTCACTGA
TGAAAACCCAAGAGCCAGCAGGTAACCTGGAGGAAAACCAATGACAAGAATAGTGGGCCACAGGGGCC
CCGAAGAACTCCTACAATGCCACAGGAGGAGGCAGCAGCATGTCCTCCTCACATTTCTCCACCAGAGAAG
AGGCCCTTGGACCTCCACCGCCGCACCTCCACCCCTCTGGTTGAAGGCGATCTTTCCA
GCGCCCCCAGGAGTTGAATCCCGCCGTGACAGCCGCTTGTGCAACTTTTATCCAGCCTGAAGCAGA
GCCTCCTGGCCACCTGCCACATGAGCACCAGGCCTTGGAGCAATGGAATACTCCACCCGATCCCATCCA
AACAGGACTTACGAAAATACTGATGGGCCTGAGACAGGTTTCAAGTCCGCTGACACTGATGAACGAGTT
CTGGTCCAGCCTTGAAGAACTTTGGTTCAGACCCCGGTGAAGAACAGGACCTTCTCAGGCTCTGTGAG
CCACCTTGGGGAGTCCAACAGCTACCAGGGCACAGGGTCAAGTGCAGTCCCAGGGGACCAGGACCTCCGT
TTTACCAGGTTCCCTTAGCATTACACTCAGTGGTTGGGCAACCATTCCTCAAGTCTGAGGGAAATAGCA
ACTCTGTGGTACATGAGAGACCAAAATGCAAACTATGGGGAGCTGGGACCGGGAACCACTGGGGCCAA
CAGCTCAGGAACAACGCTTCAAGTGGGGGGCCAGCTCAGTCTTATGAAAACCTACAGGGGGGCTGCA
AGAGTCTACCACGAGGGGAAGAGGGAGAGGAGTTCTTAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG218603 representing NM_001109626
 Red=Cloning site Green=Tags(s)

MPNSERHGGKKDGGSGGASGTSQPSSGGGSSNSRERHRLVSKHKRHKSKHSDVGLVTPEASLGTIIKPL
 VEYDDISSDSDTFSDDTAFKSDRRENEERRGTDSDRLHRHRHHQHRRSRDLLKTKQTEKEKNQEVSKSG
 SMKDRVSGSSKRSVEGSDDYGAQLSKSGSKESRSSKMHKEKTRKERELKSGYKDRSKSHRKRETPKSYK
 TVASPKRRSRSPHRKWSDDSSKQDDSPSGASYGQDYDLSPPRSHTSSNYDSYKKSPPGSTRRRQSI SPPYKE
 PSAYQSSTRSPSPYSRRQRSVSPYSRRSSSYERSGSGSYGRSPSPYGRRRSSSPFLSKRSLRSPLPSRK
 SMKSRSRSPAYSRRSSSHKRRSGRSRHSISPVRLPLNSSLGAELSRKKKRAAAAAAKMDGKESK
 SSPIILPKKEKLEVKESGLESKKLPRSIKSEKSTPDELVTVAHSNPEVKHCLDTGKVRLDENLQKHPAK
 DLKAQGTGDVQKVPAPKEVIVTSKETETSEKETLPLPTITSPPLPATTPPPQTPLPLPLPAIPLQP
 PLPPPQPPFSQVPSSTSILPSSPHRTSTLSSQTNSQPPVQVSMKTQVSITAAIPHLKTSTLPLPLPP
 LLPGGDDMDSPKETLPSKPAKKEKEQRTRHLLTDLPLPELPGGDPSPDPSEPKAITPPQQPYKRPKI
 CCPRYGERRQTESDWGKRCVDKFDIIGIIGEGTYGQVYKAKDKDTGELVALKKVRLDNEKEGFPITAI
 IKILRQLVHQSVNMKEIVTDKQDALDFKKDKGAFYLVFEYMDHDLMLLESGLVHFSEDHIKSFMKQLM
 EGLDYCHKKNFLHRDIKCSNILLNNSGQIKLADFLARLYNSEESRPYTNKVITLWYRPELLLLGEERYT
 PAIDVWSCGICLDELFTKPIFQANLELAQLELISRLCGSPCPAVWPDVTKLPYFNTMKPKKQYRRRLRE
 EFSFIPSAALDLDHMLTLDPSKRCTAEQTLQSDFLKDVLSKMAPPDLPHWQDCHELWSKRRRRRQSG
 IVIEDPPPSKASRKETTSGTTAEPVKNNSPAPPQAPVKAEPGPGDAVGLGDITQQLNQSELAVLLNLQ
 SQTDLIPQMAQLLNIHSNPEMQQLEALNQSISALTEASSQQQDSESIAPESLKEVPSVPVLPPEAQ
 TTPEASNTPADMQNVLAVLLSOLMKTQEPAGNLEENTNDKNSGPQGRRTPTMPQEEAACPPHILPPEK
 RPPPEPPPPPPPPPPPLVEGDLSSAPQELNPAVTAALLQLLSQPEAEPGHLPEHQALRPMEYSTRSHP
 NRTYGNTDGPETGFSADTDERSSGPALTESLVQTPVKNRTFSGSVSHLGESENYSYQGTGSVQFPGDQDLR
 FTRVPLALHSVVGQPFLLKSEGNNSVVAETKLQNYGELGPGTTGANSSTTLQWGGPAQSYGKPYRGAA
 RVLPRGGRGRGVPY

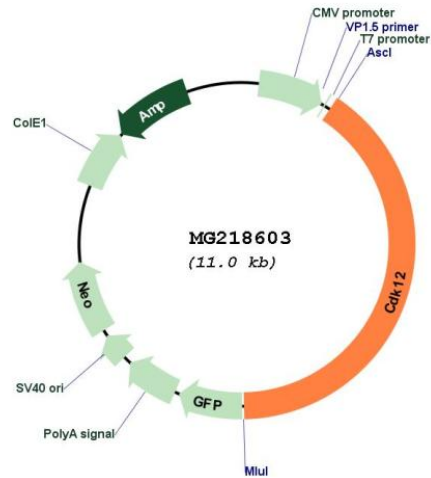
TRTRPLE - GFP Tag - V

Restriction Sites:

AscI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001109626

ORF Size: 4452 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_001109626.1](#), [NP_001103096.1](#)

RefSeq Size: 7669 bp

RefSeq ORF: 4455 bp

Locus ID: 69131

UniProt ID: [Q14AX6](#)

Cytogenetics: 11 61.75 cM

Gene Summary: Cyclin-dependent kinase that phosphorylates the C-terminal domain (CTD) of the large subunit of RNA polymerase II (POLR2A), thereby acting as a key regulator of transcription elongation. Regulates the expression of genes involved in DNA repair and is required for the maintenance of genomic stability. Preferentially phosphorylates 'Ser-5' in CTD repeats that are already phosphorylated at 'Ser-7', but can also phosphorylate 'Ser-2'. Required for RNA splicing, possibly by phosphorylating SRSF1/SF2. Involved in regulation of MAP kinase activity, possibly leading to affect the response to estrogen inhibitors.[UniProtKB/Swiss-Prot Function]