

Product datasheet for **RG211471**

CHD3 (NM_001005271) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: CHD3 (NM_001005271) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: CHD3
Synonyms: Mi-2a; Mi2-ALPHA; SNIBCPS; ZFH
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG211471 representing NM_001005271
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGGATCGCC

ATGGCTTCCCCTCTGAGGGACGAGGAGGAGGAGGAGGAGGAGATGGTGGTGTCCGAGGAGGAAGAAGAGG
 AGGAAGAAGAGGGCGACGAGGAGGAGGAGGAGGAGGTGGAGGCGGCCGACGAGGACGATGAGGAGGACGA
 CGACGAGGGAGTACTCGGGCGGGCCGGGCCACGACCGGGCCGCGACCGCCACAGCCCCCGGCTGC
 CACCTCTCCCGCCGCCCGCCGCCGCCACCGCTGCCCGCCGCCCGCCCGCCCGCCCGCCAGATA
 AGGATGACATTTCGGCTGCTGCCGTCAGCATTGGGTGTGAAGAAGAGAAAACGAGGACCCAAGAAGCAGAA
 GGAGAACAAGCCAGGAAAACCCGAAAACGCAAGAAGCGTGACAGTGAGGAGGAATTTGGTTCTGAGCGA
 GATGAGTACCGGGAGAAGTCAGAGAGTGGGGCAGTGAATATGGAACCGGACCGGGTCCGAAACGAAGAA
 GGAAGCACCGAGAAAAAAGGAGAAGAAGCAAAAGCGGGGAAAAAGGGGAGGGAGATGGGGGGCAAAA
 GCAAGTGGAAACAGAAGTCATCAGCAACTCTGCTTCTGACCTGGGGCTGGAGGATGTGGAGCATGTGTTT
 TCTGAGGAGGATTACCACAGCTCACCAACTACAAAGCCTTCAGCCAGTTCATGAGGCCCTAATTGCTA
 AGAAGAATCCTAAGATCCCAATGTCTAAGATGATGACCATCCTTGGGGCCAAATGGAGAGAGTTCAGTGC
 CAACAACCCCTTCAAGGGGTGAGCAGCTGCTGTGGCGCGGCAGCGGCAGCAGCAGCAGCAGCTGTAGCT
 GAGCAGGTGTGAGCTGCTGCTCGTCCGCCACCCCATAGCACCTCCGGACCCCGCCCTTCCACCAC
 CCCTGCTGCTGATATCCAGCCCCACCCATCCGAAGAGCCAAAACCAAGAGGGCAAAAGTCCAGGCCA
 TAAGAGGCGGAGTAAGAGCCCCGAGTGCCTGATGGACGCAAGAAGCTTCCGGGAAAAAAGAAATGGCACCA
 CTCAAAATAAACTAGGGCTTCTGGGTGGCAAGAGGAAGAAGAGGAGGCTCGTATGTTTTTTCAGAGCGACG
 AAGGTCTGAACCAGAGGCTGAGGAATCAGACCTGGACAGTGGCAGTGTCCACAGTGCCTCAGGCCGGCC
 TGATGGCCCTGTCCGACCAAGAACTAAAGAGAGGCGGCCAGGAAGGAAGAAGAAGGTCTGGGC
 TGTCTGAGTGGCCGGGAGGAGGAGGTTGATGGCTACGAGACGGATACCAGGATTACTGTGAGGTGT
 GCCAGCAGGTGGGAAATTTCTGTGTGACACCTGCCCTCGTGCCTACCACCTCGTCTGCCTTGTATCC
 TGAGCTTGACCGGCTCCAGAGGCAAAATGGAGCTGCCCTCACTGTGAGAAGGAGGGGTCCAGTGGGAG



[View online »](#)

GCCAAGGAGGAAGAAGAAGAATACGAAGAGGAGGGAGAGGAAGAAGGGGAGAAGGAGGAGGAGGATGATC
ACATGGAGTACTGCCGCGTATGCAAGGACGGCGGGGAGCTCCTGTGCTGTGACGCGTGCATCTCCTCCTA
CCACATTCATTGTCTAAACCCCTCCCCTGCCTGACATTCCTCAATGGTGAATGGCTGTGCCCCGATGCACA
TGCCCCGTGCTGAAGGGTCGAGTGCAGAAGATCCTACATTGGCGGTGGGGGAGCCACCTGTAGCAGTGC
CAGCCCCCAACAGGCAGATGAAATCCAGATGTCCCACCCCGCTCCTTTCAAGGCAGATCAGAGCG
AGAGTTCTTTGTCAAGTGGTAGGACTATCCTACTGGCACTGCTCCTGGGCAAGGAGCTTACAGTGGAA
ATCTTCCATTTGGTTATGTATCGAACTACCAGCGGAAGAATGACATGGATGAGCCCCACCCCTGGACT
ATGGTCCCGGCGAGGATGATGGGAAGAGCGACAAGCGTAAAGTGAAAGACCCGCACTATGCTGAGATGGA
GGAGAAGTACTATCGTTTTGGCATCAAGCCAGAGTGGATGACCGTCCACCGCATCATCAACCACAGTGTG
GATAAAAAGGGGAATTACCACTATCTAGTAAAATGGAGGGACTTACCATATGACCAGTCCACGTGGGAGG
AAGATGAAATGAAATCCCTGAATACGAAGAACATAAGCAAAGCTACTGGAGACACCGAGAATAATTAT
GGGGGAAGACCCTGCCAGCCCCGAAGTATAAGAAGAAGAAGGAGCTACAGGGTGTGGGCTCCC
AGTTCTCCCACTAATGATCCTACCGTGAATATGAGACTCAGCCACGGTTTATCACAGCCACTGGAGGCA
CCCTGCACATGTATCAGTTGGAAGGGCTGAAGTGGCTACGCTTCTCCTGGGCCAGGGCACTGACACCAT
TCTAGCTGATGAGATGGGCTAGGCAAGACCATACAAACCATCGTCTTCTCTACTACTCTACAAGGAG
GGCCACACAAAAGGTCCCTTCTGGTGAGTGGCCCACTCTACCATCATTAACTGGGAGCGGGAGTTCC
AGATGTGGGCACCCAAATTCATGTGGTGACATACACGGGTGACAAGGACAGCCGGGCCATCATTCTGTGA
GAATGAATTCCTTTGAGGACAATGCCATCAAAGGGGGCAAGAAAGCTTTAAGATGAAGAGGGAGGCA
CAGGTGAAGTTCATGTTCTCCTGACATCGTATGAGCTGATCACCATTGATCAGGCAGCACTTGGTTCCA
TCCGCTGGGCCTGCTTGTGGTAGATGAGGCCATCGACTCAAGAACAACCAAGTCCAAGTTTTTCAGGGT
TCTCAATGGTTACAAGATAGATCATAAGTTGCTGCTGACAGGAACCCATTGCAGAATAATCTGGAGGAG
CTCTTCCATCTCCTGAATTCCTCACCCAGAGAGATTTAACTACTGGAGGGCTTCTGGAGGAGTTTG
CTGACATATCAAAGAGGACAGATCAAGAAACTGCATGATTTGCTGGGGCCACACATGCGGGCAAG
CAAGGCAGATGCTTTAAGAACAATGCCAGCCAAGACAGAGCTCATCGTTGGGGTGGAGCTAAGCCCATG
CAGAAGAAATACTACAAATACATCCTGACTCGAAATTTGAGGCCTTGAATTCACGAGGTGGTGGGAACC
AGGTGTCGCTGCTTAATATCATGATGGATCTTAAGAAGTCTGCAACCATCCATACCTTTTTCCCGTGGC
TGCTATGGAGTCCCCAAACTCCCAGTGGGGCTTATGAGGGTGGGGCACTTATTAAGTCGCTGGGAAG
CTCATGCTGCTCCAGAAGATGCTGCGAAAGCTGAAGGAGCAAGGACACCGAGTGCATCTTCTCGCAGA
TGACCAAAATGTTAGACTTGCTTGAAGACTTCTAGACTATGAAGGCTACAAGTATGAGCGCATCGATGG
TGGTATCACGGGTGCCCTGAGGCAGGAGCCATCGATCGGTTAATGCTCCTGGGGCCCAACAATCTGC
TTCTCCTGTCCACCGAGCTGGGGCCTGGGCATCAATCTGGCCACTGCTGACACTGTCATCATCTTTG
ATTCTGACTGGAACCCCAATAATGACATCCAGGCCTTAGCCGGGCTCATCGGATTGGCCAGGCCAACAA
AGTGATGATTTACCGTTTTGTGACTCGCGCGTCACTGGAAGAGCGAATCACACAAGTGGCCAAGGAGAAAG
ATGATGCTGACACACCTGGTGTGCGGCCTGGGCTGGGCTCCAAGGCAGGCTCCATGTCCAAGCAGGAGC
TTGACGACATTCAAAATTTGGCACTGAAGAGCTATTCAGGATGAAAACGAGGGGGAGAACAAGGAGGA
GGACAGCAGTGTGATTTCATATGACAATGAGGCCATCGCTCGGCTGTTGGACCGGAACAGGATGCAACT
GAGGCACTGACGTGCAGAACAATGAATGAGTATCTCAGCTCCTCAAGGTGGCACAGTACGTCGTGCGGG
AAGAAGACAAGATTGAGGAAATGAGCGAGAGATCATCAAGCAGGAGGAGAATGTGGACCCTGACTACTG
GGAGAAGCTGCTGAGGCATCACTATGCAACAGCAGGAAGACCTAGCCCGGAATCTAGGCAAGGGCAAG
CGGGTTCGAAGCAAGTTAACTACAATGATGCTGCTCAGGAAGACCAAGACAACCAAGTCAAGTACTCGG
TGGGTTACAGAGGAGGAGATGAAGACTTCGATGAACGTCCTGAAGGGCGTAGACAGTCAAAGAGGCACT
CCGGAATGAGAAAGATAAGCCACTGCCTCCACTGCTGGCCGAGTGGGGGCAACATTGAGGTGCTGGGC
TTCAACACCCGTGAGCGGAAGGCTTTCTCAATGCTGTGATGCGCTGGGGGATGCCACCACAGGATGCCT
TCACCACACAGTGGTGGTGGGGACCTGAGGGGCAAGACTGAGAAGGAGTTAAGGCCTATGTGCTTTT
GTTTCATGCGCCATCTGTGTGAGCCTGGGGCAGACGGCTCTGAAACCTTTGCCGATGGGGTCCCTCGGGAG
GGACTGAGTCGCCAGCAGGTGTTGACCCGACTTGGAGTCACTGCTCTCGTCAAAAAGAAGGTGCAGGAGT
TTGAGCACATCAATGGGCGTTGGTCAATGCCGGAAGTATGCTGACCCAGCCGCGATTCTAAGCGCTC
CTCCAGAGCCTCCTCTCTACAAAACGCTCTCCACCCTCTGAGGCTTCTGCTACCAACAGTCCCTGC
ACCTCTAAACCTGCTACTCCAGTCCAAGTGAAGAAAGGAGAAGGCATAAAGGACACCTCTTGAAGGAGG
AAGCTGAAAACAGGAGGAAAAGCCAGAGAAGAACAGCAGAATGGGGAGAAGATGGAGACAGAGGCTGA
TGCCCCAGCCCAGCCCCATCACTTGGGGAGCGGCTGGAGCCAAGGAAGATTCCTCTAGAGGATGAGGTG
CCAGGGGTGCCTGGAGAGATGGAGCCTGAACCTGGGTACCGTGGGGACAGAGAGAAGTACGCCACAGAGT

CGACGCCAGGAGAAAGGGGGAGGAGAAGCCGTTGGATGGACAGGAACACAGGGAGGGCCGGAGGGGA
AACAGGGGATTTGGGCAAGAGAGAAGATGTAAAAGGTGACCGGGAGCTTCGACCAGGGCCTCGAGATGAG
CCACGGTCCAATGGGCGACGAGAGGAAAAGACAGAGAAGCCCCGGTTCATGTTCAATATCGCCGATGGTG
GCTTCACAGAGCTTCACACACTGTGGCAGAATGAGGAACGGGCAGCTATTTCTCGGGGAACTCAATGA
GATCTGGCACAGAAGACATGACTATTGGCTTCTGGCTGGGATTGTCCTCCATGGCTATGCACGGTGGCAG
GACATCCAGAATGATGCTCAATTTGCCATTATCAACGAGCCATTTAAAAGTGAAGCCAATAAGGGGAACT
TTCTGGAGATGAAAAATAAGTTCTGGCCGGAGGTTCAAGCTCCTGGAGCAGGCCTGGTGATTGAGGA
GCAGCTGCGGCGGGCGGCTACCTGAACCTGTGCGAGGAGCCGGCGCACCCGCCATGGCCCTCCACGCC
CGCTTCGCCGAGGCCGAGTGCCTGGCCGAGAGCCACCAGCACCTCTCAAGGAGTCGCTGGCGGGGAACA
AGCCGGCCAACGCCGCTCTGCACAAGTTCTGAACCAGCTGGAGGAGTTGCTGAGCGACATGAAGGCGGA
CGTGACCCGCCTGCCAGCCACGCTGTCCGAATACCCCCATCGCAGCCCGCCTTCAGATGTCCGAGCGC
AGCATCTCAGCCGGCTGGCCAGCAAGGGCACGGAGCCTCACCCACACCCGGCCTACCCGCCGGTCCCT
ACGCTACACCTCCGGGTACGGGGCGGCTTCAGCGCCGACCCGTAGGGGCCCTGGCCGCCGAGGCGC
CAATTACAGCCAGATGCCTGCAGGGTCTTCATCACAGCCGCCACCAACGGCCCTCCAGTGCTTGTGAAG
AAGGAGAAGGAAATGGTGGGGCATTGGTGTGACAGCGGGCTGGATCGGAAGGAGCCCGAGCCGGGGAGG
TGATCTGTATAGACGAC

ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG211471 representing NM_001005271
 Red=Cloning site Green=Tags(s)

```
MASPLRDEEEEEEMVSEEEEEEEEGDEEEEEVEAAEDDEEDDDEGLGRGPGHGRDRHSPPGC
HLFPPPPPPPLPPPPPPPKDDIRLLPSALGVKKRKRKPKKQKQENKPKPKRKRKRDESEEFGSR
DEYREKSESGGSEYGTGPGRKRRRKHREKKEKTKRRKKGEGDGGQKQVEQKSSATLLL TWGL
EDVEHVF SEEDYHTLTNYKAFSQFMRPLIAKKNPKIPMSKMMTILGAKWREFSANNPFKGSAA
AAAAA VAAEQVSAAVSSATPIAPSGPPALPPPAADIQPPPIRRAKTEGKGGPHKRRSKSPR
VPDGRKKLRGKKMAP LKIKLGLLGGKRKKGGSYVFSDEGPEPEAEESDLDSGSVHSASGRPD
GVPVRTKLLKRGRPRGKRRKVVGLCPAVAGEEEVDGYETDHQDYCEVCQGGGEIILCDT
CPRAYHLVCLDPELDRAPEGKWSCPHCEKEGVQWEAKEEEEEEEEGEKEEEDDHMEYCRV
CKDGGELLCCDACISSYHIHCLNPLPDIPNGEWLCPRCTCPVLKGRVQKILHWRWGEP
PVAVPAPQQADGNPDVPPRPLQGRSEREFFVKWVGLSYWHCSWAKELQLEIFHLVMYRNY
QRKNDMDEPPPLDYGSGEDDGKSDKRKVKDPHYAEMEKEYRFGIKPEWMTVHRIINHSV
DKKGNHYLVKWRDLPYDQSTWEEDEMNIPEYEEHKQSYWRHRELIMGEDPAQPRYK
KKKKELQDGGPPSSPTNDPTVKYETQPRFITATGGTLHMYQLEGLNWLRFSAQGTDTIL
ADEMGLGKTIQTIIVFLSYLYKEGHTKGFPLVSAPLSTIINWEREFQMWAPKFYVVTY
TGDKDSRAIIRENEFSFEDNAIKGGKAFKMKREAQVKFHVLLTSYELITIDQAALG
SIRWACLVVDEAHRLKNNQSKFFRVLNGYKIDHKKLLTGTPQLNNLEELFHLNFLT
PERFNNLEGFLEEFADISKEDQIKKLDLLGPHMLRRLKADVFNMPAKTELIVRVELSPM
QKYYKYILTRNFEALNSRGGNQVSLNIMMDLKKCNHPYLPVAAMESPKLPSGAYEGGAL
IKSSGLMLLQKMLRKLKEQGHVLIQSMTKMLDLEDFLDYEGYKYERIDGGITGALRQE
AIDRFNAPGAQQFCFLLSTRAGGLGINLATADTVIIFDSDWNPNDIQAFSRAHRIGQ
ANKVMIYRFVTRASVEERITQVAKRKMMLTHLVVRPGLGSKAGSMKQELDDILKFGTEEL
FKDENEGENKEEDSSVIHYDNEAIARLLDRNQDATEDTDVQNMNEYLSSFVAQYVV
REEDKIEEIEREIIKQEENVDPDYWEKLLRHHYEQQQEDLARNLKGGRVVRKQVNY
NDAAQEDQDNQSEYSVGSSEEEDEDFDERPEGRRQSKRQLRNEKDKPLPPLLARV
GGNIEVLGFNTRQRKAFLNAVMRWGMPPQDAFTTQWLVRDLRGKTEKEFKAYVSL
FMRHLCEPGADGSETFADGVPREGLSRQVQLTRIGVMSLVKVKVQEF
EHINGRWSMPELMPDPSADSKRSSRASSPTKTSPTTPEASATNSPCTSKPATPAPSEK
GEGIRTPLEKEEAENQEEKPEKNSRIGEKMETEADAPSPAPSLGERLEPRKIPLEDEV
PGVPGEMEPEPGYRGDREKSATESTPGERGEEKPLDGQEHREPERPEGETGDLGK
REDVKGDRELPGPRDEPRSNGRREEKTEKPRFMFNIADGGFTELHTLWQNEERAAI
SSGKLINEIWHRRHDYWLLAGIVLHGYARWQDIQNDAQFAIINEPFKTEANKGNF
LEMKNFLARRFKLLEQALVIEEQLRRAAYLNLSQEP AHPAMALHARFAEAEC
LAESHQHLKESLAGNKPANAVLHKVLNQLLELLSDMKADVTRLPATLSRIPPIAARL
QMSERSILSRLASKGTEPHPTPAYPPGYATPPGYGAASAPV GALAAAGANYSQMPAGS
FITAAATNGPPVLVKEKEMV GALVSDGLDRKEPRAGEVICIDD
```

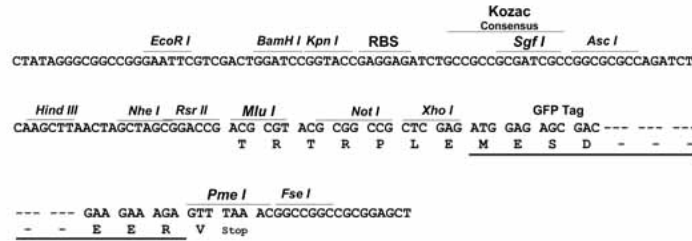
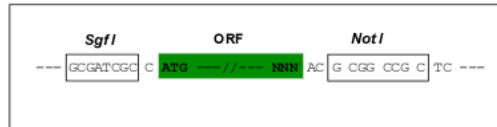
TRPLE - GFP Tag - V

Restriction Sites:

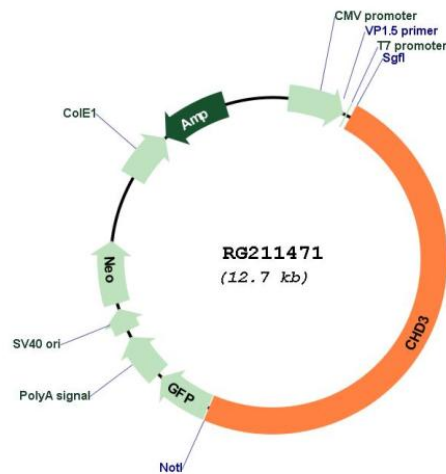
SgfI-NotI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001005271

ORF Size: 6177 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_001005271.3</u>
RefSeq Size:	7372 bp
RefSeq ORF:	6180 bp
Locus ID:	1107
UniProt ID:	<u>Q12873</u>
Cytogenetics:	17p13.1
Protein Families:	Druggable Genome
Gene Summary:	This gene encodes a member of the CHD family of proteins which are characterized by the presence of chromo (chromatin organization modifier) domains and SNF2-related helicase/ATPase domains. This protein is one of the components of a histone deacetylase complex referred to as the Mi-2/NuRD complex which participates in the remodeling of chromatin by deacetylating histones. Chromatin remodeling is essential for many processes including transcription. Autoantibodies against this protein are found in a subset of patients with dermatomyositis. Three alternatively spliced transcripts encoding different isoforms have been described. [provided by RefSeq, Jul 2008]