

Product datasheet for RC218282

ch TOG (CKAP5) (NM_001008938) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ch TOG (CKAP5) (NM_001008938) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ch TOG
Synonyms:	ch-TOG; CHTOG; MSPS; TOG; TOGp
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218282 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGGGAGATGACAGTGAGTGGTTGAAACTGCCAGTTGATCAGAAATGTGAACACAAGCTGTGAAAGCAA
GGTTAAGTGGGTATGAAGAGGCCCTGAAGATCTCCAGAAAATAAAGGATGAAAAGAGCCCAGAGTGGTC
CAAATTTTAGGATTGATCAAAAAATTTGTCAGTATTCCAATGCAGTGGTTCAATTGAAAGGATTAGAA
GCTGCACCTTGTATGTTGAAAAATGCCATGTAGCAGGAAAAACACAGGAGAAGTTGTGTCAGGTGTTG
TAAGTAAGGTGTTCAATCAACCTAAAGCTAAAGCCAAGGAGCTGGGCATAGAGATCTGTCTTATGTACAT
AGAGATTGAGAAAAGGAGAGGCTGTTCAAGAAGAGCTCCTGAAAGGCTTGGACAATAAGAATCCCAAGATC
ATAGTGGCCTGTATAGAGACACTGAGGAAAGCCTTAAGTGAATTTGGTTCCAAAATCATCTTGCTTAAGC
CAATTATCAAAGTGTGCCCCAACTCTTTGAGTCTCGAGAGAAGGCTGTTGAGATGAAGCCAACTAAT
TGCTGTGGAGATTTACAGATGGATTCGGGATGCTCTGAGACCCCCATTACAAAATATAAACTCTGTTGAG
TTGAAAGAAGTGAAGAAGAATGGGTCAAAGTCCCAACAAGTGTCTTAGACCTACTCGATTTCTTCGTT
CCCAACAAGAAGTGAAGCTAAATGGAACAACAACAGTCTGCTGGTGGAGATGCTGAAGGAGGTGGTGA
TGATGGTGTGAGGTGCCAAAAATAGATGCTTATGAGCTTTTGAAGCTGTAGAAATCCTTTCCAACTT
CCCAAAGACTTTTATGACAAAATGAGGCAAAAAATGGCAAGAGAGAAAAGGCCCTGGAGTCTGTAG
AAGTACTAATAAAAAACCCAACTGGAAGCTGGCGATTATGCAGATTTAGTAAAAGCATTAAAGAAGGT
TGTTGAAAGGACACCAATGTATGTTGGTGGCTTTGGCAGCAAAATGTCTTACTGGCCTGGCTGTTGGG
CTAAGGAAGAAATTTGGACAATATGAGGACATGTTGTGCCAACCATCTTGGAGAAATCAAAGAGAAGA
AACCTCAAGTGGTACAAGCCCTGCAGGAGGCAATTGATGCAATCTTCTTACTACCACACTACAGAACAT
CAGTGAGGATGTTTTAGCAGTAATGGATAATAAAATCCAACCATCAAGCAGCAGACATCTTTTTATT
GCAAGAAGTTCCGCCACTGCACGTCTTACCCTGCCAAAGAGCTTGTAAAGCCCTTTGTGCTGCAC
TACTTAAGCACATCAATGATTCTGCTCCTGAAGTCAGAGATGCCGATTTGAAGCATTGGTACTGCTTT
GAAGGTGGTTGGCGAGAAAGCAGTAAACCCATTCTAGCTGATGTGGACAACTCAAGCTTGATAAGATC



[View online >](#)

AAAGAATGTTTCAGAAAAGGTAGAACTGATACATGGTAAGAAAGCTGGACTAGCTGCTGATAAGAAGGAAT
TCAAACCTCTGCCTGGAAGGACTGCTGCTTCAGGGGCTGCAGGAGATAAGGACACAAAGGACATTTCTGC
ACCCAAACCAGGACCTCTAAAAAGGCACCTGCTGCTAAGGCTGGTGGGCCACCAAAAAAGGGGAAACCA
GCTGCACCAGGAGGCGCAGGGAATACTGGAACCAAGAACAAGAAAGGACTGGAGACTAAAGAAATAGTGG
AGCCTGAGCTCTCGATAGAAGTATGTGAAGAAAAAGCTTCAGCTGTTCTTCCCTACCTGTATACAGCT
TCTTGACAGCAGTAACCTGGAAGAAAGGCTGGCTTGTATGGAAGAGTTCAGAAAGGCTGTTGAGCTAATG
GACCGAAGTAAAATGCCATGCCAGGCATTAGTGAGGATGCTAGCCAAGAAACCTGGATGGAAGAAACTA
ATTTTCAGGTGATGCAAATGAAGCTTCATATAGTTGCTTTGATTGCCAGAAAGGAAATTTTCCAAAAAC
GTCAGCTCAGGTTGATTAGATGGCCTTGTGGACAAGATTGGAGATGTGAAATGTGGGAACAATGCAAAA
GAAGCTATGACAGCAATAGCCGAAGCCTGTATGTTACCATGGACTGCTGAACAGGTTGTGTCAATGGCTT
TCTCACAAAAGAATCCCAAAAATCAGTCAGAACTCTGAATTGGCTATCAATGCCATAAAAAGATTTGG
TTTTCTGGGTTGAATGTCAAAGCTTTCATTAGCAATGTGAAGACAGCTCTTGTGCAACAAACCCAGCT
GTGAGGACTGCTGCCATAACCTGCTTGGCGTGATGTATCTGTATGTTGGTCCCTCTTTCGCAATGTTCT
TTGAGGATGAGAAGCCTGCCCTCTATCCAGATAGATGCAGAATTTGAGAAGATGCAGGGACAAGTCC
ACCTGCTCCAACCAGAGGAATTTCCAAGCATAGCACAAGTGGTACAGATGAAGGAGAAGATGGAGATGAA
CCAGATGACGGGAGCAATGATGTCGTTGATCTTTTGGCAGGACGGAGATCAGTGATAAAAATCACTTCAG
AGTTGGTATCTAAGATTGGTGATAAGAATTGGAAGATTAGGAAAGAAGGCCTAGATGAAGTGGCAGGTAT
TATTAATGACGCAAAATTTATCCAACCGAATATAGGTGAACCTTCCAACCTGCCTTGAAGGGTGCAGTCAAT
GATTCAAATAAAATCTTGGTACAGCAACGCTGAATATCCTGCAACAACCTGGCAGTAGCCATGGGCCAA
ATATTAAGCAACATGTAAAAATTTAGGCATCCCTATCATCACAGTCTTGGAGACAGCAAGAACAATGT
TCGAGCTGCTGCCCTAGCGACTGTGAATGCTTGGGCAGAACAGACTGGCATGAAGGAATGGCTGGAAGGA
GAAGATCTTTCTGAAGAGCTCAAAAAGGAAAACTCTTTCTTGGAGCAAGAGCTTCTGGCTGGCTGGCTG
AGAAACTACTACTCTTCTGTTCCACCCCTACAGACCTTATCCTTTGTGTTCTCATCTACTCTCTCTCT
AGAAGATCGAAATGGAGATGTGCCAAAGGCAAGCCCAAGATGCCTTGCCTTCTTCATGATGCAATTTAGGA
TATGAAAAATGGCCAAGGCTACTGGGAAACTAAAGCCAACCTTCTAAAGATCAGGTATTGGCCATGCTAG
AGAAAGCCAAAGTTAACATGCCAGCCAAGCCTGCTCCACCCACTAAAGCAACTTCTAAACCAATGGGAGG
GTCCGCTCCAGCCAAATTCAGCCTGCATCAGCACCTGCTGAAGATTGATTTCCAGCAGTACAGAACCC
AAACCTGATCCAAAAAGGCCAAAGCTCCAGGATTATCCTCTAAAGCAAAGAGTGCAACAAGGGAAGAAGA
TGCCAAGCAAACAGCTTAAAGGAGGATGAAGACAAATCCGGGCCTATTTTTATTGTTGTTCCAAATGG
AAAAGAGCAAAGGATGAAAGATGAAAAAGGATTGAAGGTGCTAAAGTGAATTTTACTACCCACGGGAT
GAATACATTGAGCAACTAAAGACTCAAAATGCTAGCTGTGTGGCTAAATGTTTACAAGATGAGATGTTTC
ACTCAGACTTTCAGCATATAACAAAGCCCTTGTGTTATGGTTGATCACTTGGAGAGTGAAAAAGAAGG
AGTTATTGGGTGCCTGGATCTTATCTTAAAGTGGCTTACCCTGAGGTTTTTTGACACCAATACAAGCGTC
CTGATGAAAGCACTAGAATATTTAAAAATGCTCTTACCTTGTAAAGTGAAGAAGAATATCATCTTACTG
AGAATGAAGCATCTTCTTTCATCCCTATCTTGTGCTCAAGGTTGGAGAACCAAGGATGTCATTCGTAA
AGATGTTGCTGCCATCCTGAACCGGATGTGCCTTGTCTACCCAGCTAGCAAGATGTTTCCCTTATCATG
GAAGGAACCAATCCAAAACTTAAGCAGAGAGCAGAGTGCCTGGAAGAGCTGGGATGTCTGGTTGAGT
CCTATGGCATGAATGTTTGCCAACCAACCCAGGAAAAGCCTTAAAGGAAATAGCTGTTCCATAGGAGA
CGGTGACAAATGCTGTACGCAATGCTGCACTCAACACCATTGTAACGGTGTACAATGTACATGGGGATCAG
GTGTTCAAACCTGATTGGAAATCTTTCTGAAAAGGATATGAGCATGCTCGAGGAGAGGATTAAGCGGTGAG
CAAAGAGACCCTCTGCTGCACCAATAAAACAGGTGGAAGAGAAACCTCAGCGTGACAGAACATAAGCTC
CAATGCCAACATGTTACGCAAGGGACCAGCTGAGGACATGTCTTCCAACTCAACCAAGCCCGAAGCATG
AGTGGGCATCCTGAGGCAGCCAGATGGTCCGCCGAGAATTCCAGCTGGATCTAGATGAGATTGAGAATG
ACAATGGTACAGTCCGATGTGAAATGCCAGAATGTTTCCAGCACAACCTGGATGACATTTTTGAGCCAGT
CCTTATCCTGAACCAAGATCCGGGCTGTTTCTCCACACTTCGATGACATGCACAGTAATACAGCATCC
ACAATCAATTTTATTCTCCAAAGTAGCCAGTGGTACATCAACACAAGTATCCAAGCTCTGACACAGA
TCGATGAGGTCCTGAGACAGGAAGACAAAGCTGAAGCCATGTCCGGCCATATTGATCAGTTTCTGATAGC
CACTTTTATGCAGCTAAGACTCATCTACAACACACACATGGCAGATGAGAAATTGGAGAAGGACGAGATC
ATCAAGTTGTATAGCTGTATCATTGGCAACATGATTTTCGCTGTTTCAGATAGAGAGCCTTGCCCGGAGG
CCTCCACTGGAGTACTAAAAGACCTAATGCATGGCCTCATCACCTAATGCTGGATTCTCGGATTGAAGA
TCTTGAGGAAGGACAACAGGTATCCGCTCTGTGAACCTCTTGGTGGTGAAGGTTCTGGAGAAGTCAAGC
CAGACCAACATCCTGAGTGCCCTACTGTTTTGCTCCAAGACAGCCTGCTAGCAACAGCCAGTCTCCCA

AATTCTCAGAGCTTGTTATGAAGTGTCTCTGGAGAATGGTTCGACTGTTGCCTGATACCATCAATAGCAT
TAACCTAGACAGAATTCTTCTGGATATCCACATTTTCATGAAGGTCTTCCCAAAGAGAACTGAAGCAA
TGCAAAAGTGAATTTCCCAT AAGGACCCTAAAGACCCTGCTACACACCTTATGCAAATTAAGGGCCCA
AGATCCTGGACCACCTAACGATGATCGACAACAAAAACGAGTCTGAGCTGGAGGCCATCTCTGCCGGAT
GATGAAGCACAGTATGGACCAGACTGGGAGCAAGTCTGATAAGGAAACAGAAAAGGGAGCATCTCGAATA
GATGAAAAATCATCAAAGGCCAAAGTGAATGATTTCTTAGCTGAGATTTTAAAGAAGATTGGCTCTAAAG
AAAACACTAAAGAGGGACTAGCAGAGTTATATGAATATAAGAAGAAATACTCAGATGCTGACATTGAACC
ATTTCTGAAAAATTCCTCACAGTTCTTCCAGAGCTATGTCGAAAGAGGCCTTCGGGTGATTGAGATGGAG
AGGGAGGGCAAAGGTCGTATTTCCACTTCAACAGGCATCTCCCCTCAGATGGAAGTCACATGTGTGCCCA
CGCCACAAGCACAGTGTCTCCATAGGTAACACAAATGGGGAAGAAGTGGGGCCATCTGTCTACTTGGGA
AAGGCTAAAGATCCTCCGACAGCGATGTGGTCTGGACAACACAAAGCAAGATGACCGACCTCCTTTGACC
TCTTTGCTCTCAAACCAGCAGTTCCTACTGTCGCCTCTCCACAGACATGCTCCACAGCAAACCTCTCTC
AGCTCCGGGAGTCACGGGAGCAGCACCAGCATTGACACCTGGATTCTAACCAGACTCACTCTTCAGGAAC
TGTGACCTCCTCCTCCTCCACAGCTAACATAGACGACTGAAAAAAGACTGGAGAGAATAAAGAGCAGT
CGCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>RC218282 protein sequence
 Red=Cloning site Green=Tags(s)

MGDDSEWLKLPVDQKCEHKLWKARLSGYEEALKIFQKIKDEKSPEWSKFLGLIKKFVTDSTNAVAVQLKGLE
 AALVYVENAHVAGKTTGEVSVSGVSKVFNQPKAKAKELGIEICLMIYIEIEKGEAVQEELLKGLDNKNPKI
 IVACIETLRKALSEFGSKIILLKPIIKVLPKLFESREKAVRDEAKLIAVEIYRWIRDALRPPLQININSVQ
 LKELEEEWVKLPTSAPRPTFRFLRSQQELEAKLEQQQSAGGDAEGGGDDGDEVPQIDAYELLEAVEILSKL
 PKDFYDKIEAKKWQERKEALESVEVLKKNPKLEAGDYADLVKALKKVVGKDTNVMVALAAKCLTGLAVG
 LRKKFGQYAGHVPTILEKFKEKKPQVVQALQEIDAIFLTTTLQNI SEDVLAVMDNKNPTIKQQTSLFI
 ARSFRHCTASTLPKSLKPFCAALLKHINDSAPEVRDAAFEALGTALKVVGEKAVNPFLADVDKLKDKI
 KECSEKVELIHGKAGLAADKKEFKPLPGRTAASGAAGDKDTKDISAPKPGPLKKAAPAKAGPPKKGK
 AAPGGAGNTGKTKKGLTKEIVEPELSIEVCEEKASAVLPPTCIQLDSSNWKERLACMEEFQKAVELM
 DRTEPCQALVRMLAKKPGWKE TNFQVMQMKLHIVALIAQKGNFSKTSAQVVDLGLVDKIGDVKCGNNAK
 EAMTAIAEACMLPWTAEQVVSMAFSQKNPKNQSETLNWLSNAIKEFGFSGLVNKA FISNVKTA LAATNPA
 VRTAAITLLGVMYL YVGP SLRMFFEDEK PALLSQIDA EFEKMQGQSPPAPTRGISKHSTSGTDEGEDGDE
 PDDGSNDVVDLLPRTEISDKITSELVSKIGDNWKIRKEGLDEVAGIINDAKFIQPNIGELPTALKGRLN
 DSNKILVQQTLNILQQLAVAMGPNIKQHVKNLGIPITVLDGSKNNVRAAALATVNAWAEQTGMKEWLEG
 EDLSEELKKNPFLRQELGWLAEKPLTRSTPTDLILCVPHLYSCLDRNGDVRKAQDALPFFMMHLG
 YEKMAKATGKPKPTSKDQVLAMLEKAKVNMPAKPAPPTKATSKPMGGSAPAKFQPASAPAEDCISSTEP
 KPDPKKAKAPGLSSKAKSAQGGKMPKSTSLKEDEDKSGPIFIVVPNGKEQRMKDEKGLKVLKWNFTTPRD
 EYIEQLKTQMSSCVAKWLQDEMFHSDFQHHNKALAVMVDHLESEKEGVIGCLDLILKWLTLRFFDNTSV
 LMKALEYLKLLFTLLSEEEYHLTENEASSFIPYLVVKVGEPKDVIRKDVRAILNRMCLVYPASKMFPFIM
 EGTKSKNSKQRAECLLEELGCLVESYGMNVCQPTPGKALKEIAVHIGDRDNAVRAALNTIVTVYNVHGDQ
 VFKLIGNLSEKDMLEERIKRSARPSAAPIKQVEEKQRAQNISSNANMLRKGPAEDMSSKLNQARSM
 SGHPEAAQMVRRFQLDLDEIENDNGTVRCEMPELVQHKLDDIFEPVLIPEPKIRAVSPHFDDMHSNTAS
 TINFIISQVASGDINTSIQALTQIDEVLRQEDKAEAMSGHIDQFLIATFMQLRLIYNTHMADEKLEKDEI
 IKLYSCIIGNMISLFQIESLAREASTGVKDLMHGLITLMLDSRIEDLEEGQQVIRSVNLLVVKVLEKSD
 QTNILSALLVLLQDSELLATASSPKFSELVMKCLWRMVRLLPDTINSINLDRILLDIHIFMKVFPKEKLKQ
 CKSEFPIRTLLHTLCKLKGPKILDHLTMIDNKNESELEAHLCRMMKHSMDQTSKSDKETEKGASRI
 DEKSSKAKVNDFLAEIFKKIGSKENTKEGLAELYEYKKKYSADADIEPFLKNSSQFFQSYVERGLRVIEME
 REGKGRISTSTGISPQMEVTCVPTPTSTVSSIGNTNGEEVGPSVYLERLILRQRCGLDNTKQDDRPLT
 SLLSKPAVPTVASSTDMHLSKLSQLRESREQHQHSDLDSNQTHSSGTVTSSSTANIDDLKKRLERIKSS
 RK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001008938

ORF Size: 6096 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 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_001008938.4](#)

RefSeq Size: 6730 bp

RefSeq ORF: 6099 bp

Locus ID: 9793

UniProt ID: [Q14008](#)

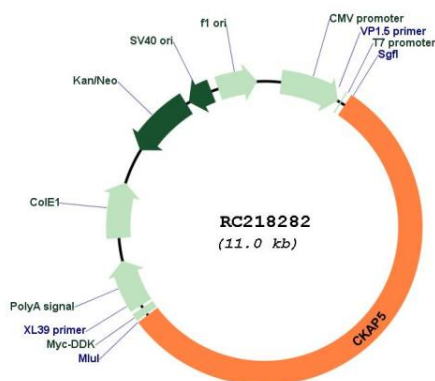
Cytogenetics: 11p11.2

Protein Families: Druggable Genome

MW: 225.5 kDa

Gene Summary: This gene encodes a cytoskeleton-associated protein which belongs to the TOG/XMAP215 family. The N-terminal half of this protein contains a microtubule-binding domain and the C-terminal half contains a KXGS motif for binding tubulin dimers. This protein has two distinct roles in spindle formation; it protects kinetochore microtubules from depolymerization and plays an essential role in centrosomal microtubule assembly. This protein may be necessary for the proper interaction of microtubules with the cell cortex for directional cell movement. It also plays a role in translation of the myelin basic protein (MBP) mRNA by interacting with heterogeneous nuclear ribonucleoprotein (hnRNP) A2, which associates with MBP. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RC218282