

Product datasheet for **RG215920**

Kinetochores (KNTC1) (NM_014708) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	Kinetochores
Synonyms:	ROD
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG215920 representing NM_014708
Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGGAATGATATTGAGCTGCTAACAATGATGATACCGGAAGTGGGTACCTGAGTGTGCGTTCAAGAA
AAGAACATGGAAGTCTTTATATCAAGTAGATTGCTAGTGAAGATCTCTTCTGAAAAGGCCTCATTAA
TCCAAAGATACAGGCATGCAGCTTAAGTGATGGGTTTATTATTGTAGCCGACCAATCAGTGATATTGCTT
GACAGTATTTGTAGATCACTTCAATTGCATCTTGTCTTTGATACTGAAGTGGATGTAGTTGGCCTTTGTC
AAGAAGGAAAGTTTCTTTTGGTTGGCGAGAGAAGTGGCAACCTACATCTTATTCATGTAAACATCAAAACA
AACACTACTCACTAATGCATTTGTTTCAGAAAGCTAACGATGAAAATCGGCGGACTTACCAGAATCTTGTC
ATTGAGAAGGATGGTTCAAATGAAGGTACCTATTATATGCTACTTCTTACATACAGTGGATTTTTTTGTA
TTACAAACCTTCAGCTTTTAAAAATCAACAAGCAATTGAGAATGTAGACTTCAGTACAGCAAAAAAGTT
ACAAGGACAAATCAAGTCCAGTTTTATTTCTACTGAAAATTATCATACTCTGGTTGTCTCAGTCTTGTC
GCTGGAGATTTAGCAAGTGAAGTTCCTGTGATAATTGGGGGAACCGGTAATTGTGCATTCTCAAAATGGG
AACCAGATTCTTCCAAGAAAGGAATGACAGTTAAGAACCTTATTGATGCAGAGATTATTAAGGTGCAAA
GAAGTTCCAGCTGATAGACAATCTACTTTTTGTTCTTGATACTGATAACGTGCTGAGTTTATGGGATATT
TACACTCTAACTCCTGTATGGAAGTGGCCCTCTTTCACGTAGAAGAGTTTCTTCTTACTACAGAAGCAG
ACTCTCCTTCATCAGTCACGTGGCAAGGAATTACAAATCTCAAATTAATAGCTCTGACAGCTTCAGCTAA
TAAGAAGATGAAAACCTCATGGTTTATTACCTACAATGGAATACTATATTCTTTGGAAGTATCT
AGTGTTTCTTCTCTGGTCCAACAGGAATTAGCACAGATACCATATACCTTTTAGAAGGAGTTTGCAAAA
ATGATCCAAAATTGTCTGAAGACTCAGTCTCTGTGTTAGTACTCAGATGTCTTACGGAAGCTTTACCAGA
AAACAGATTGAGTCGGTTACTTCACAAACACAGATTTGCTGAAGCTGAGAGTTTGGCATTGAGTTTGA
CTAGATGTTGAGCTTGTTCACAAAGTCAAGTCAATCATATATTGGAGAAAATGGCATTGAGTTCTGTGG
ATGCCAGTGAACAGACCGAATGGCAACCTTTAGACGACGCTAAGGAAAATCTACATAAGATCCAGGA
TGATGAATTTGTGGTGAATTACTGCTGAAAGCTCAGTGGATAACCTATGAAACCACTCAAGAGATGCTG
AATTATGCCAAAACAGGCTTTTGAAGAAAGAAGATAAACTGCTCTCATTATTCTGATGGCTTGAAAG



AGGTGCTAAGAGCTCATGCAAAATTGACTACTTTTTATGGAGCATTTGGACCAGAAAAATTCAGTGGCAG
TTCTTGGATTGAATTTCTAAATAATGAAGATGATCTTAAAGATATTTTTTTACAGCTAAAAGAAGGAAAC
CTTGTGTTGTCACAGTATCTTTGGCTTCGACATCGGGCAAACCTTTGAAAGCAGATTTGATGTGAAATGC
TGGAGAGCTTGCTCAACTCAATGTCTGCATCAGTCTCTTTGCAAAAGCTGTGCCATGGTTTAAAAATGA
TGTGATTCCATTTGTAAGAAGGACTGTGCCTGAAGGACAGATAATCTTGCAAAATGGTTGGAACAAGCA
GCCAGGAACCTTGAATTAAGTATAAGGCAAAATGGCCAGAAAATGGACTTCAATTGGCAGAGATATTTT
TTACAGCAGAAAAACAGACGAGTTGGGATTGGCATCTTCTGGCATTGGATTTCTTGAAAGATTATCA
GAACACAGAGGAAGTATGTCAGCTAAGGACTTTGGTAAATAACTTGCGAGAGTTGATCACGTTGCATAGG
AAGTACAACCTGCAAAATAGCCCTCTCTGATTTTGAGAAGGAAAAATACAACCACCATAGTGTTCGGAATGT
TTGATAAAGTGCTGGCCCCAGAGCTTATTCCTCCATCTTAGAGAAGTTTATAAGAGTTTACATGAGAGA
ACATGACTTGAAGAGGAGGAACCTTCTTGTGTACATAGAGGATTTACTGAATAGATGCAGCTCAAAAG
TCCACATCACTCTTTGAAACAGCATGGGAAGCAAAGGCCATGGCAGTAATAGCGTGTTTATCTGACACGG
ACCTCATATTTGATGCCGTGCTCAAGATCATGTATGCGGCAGTGGTTCTTGAGTGCAGCTGTGGAGCA
ACTGGTGAACAGCACCTGGAAATGGACCATCCAAAGTCAAGTTATTACAGGAAAGTTACAACTAATG
GAGATGAAAAAATTTTACGAGGCTATGGAATAAGAGAGGTAATCTCTTAAACAAGGAAAAATGAGAG
TGGTTAGATACATTCTCAACAAGATGTCCCATCTTCTTTAGAAAGTGTCTTAAAGGTAGCCCAAGCGTT
TATGTTATCTGATGATGAGATCTACAGTCTAAGAATTATTGACCTGATTGATAGAGAACAGGGTGAAGAC
TGTCTCCTTCTGTTGAAGTCTTTGCCCTCTGCTGAAGCTGAGAAAAGTGCAGAAAGAGTCATCATATGGG
CAGCACTGGCATTACAAGAAGAGCCAGATCATTCTAAGAGGGCAAGGCTGGAGAATGTCTGTAGCGAA
GACATCCGTGGACATTCTTAAGATACTATGTGACATTGAGAAAGCAATCTGCAGAAAGAGGACGAATGT
GAAGAAATGTTGAACTATTTAAAGAGGTTGCTAGCTTACAGGAGAACTTTGAGGTCTTTCTTTCATTTG
AAGATTATAGCAATAGTTCCTGGTAGCAGATCTCCGTGAGCAGCACATTAAGCTCACGAAGTGCACA
GGCGAAACACAACTGGGAGCACCCAGAGCCATAGCTGCTGAGGTGAGGAGCCCAAGCATGGAATCA
AAGCTGCACAGACAGGCACTGGCCCTGCAGATGTCAAACAAGAGCTGGAGGCAGAGCTGACCTTGAGAG
CCTTAAAGATGGGAACATCAAAACAGCACTGAAAAATGCAGCGACTTGTGTTAAGTATCACTGCAATGC
TGACACTGGGAAATTTGCTATTTCTGACATGTGAGAAGCTTTGTGAGATGTTGGCTGATAATGTCCAGTG
ACAGTGCCCTGTGGGACTGAATCTTCTTCCATGATACATGATCTAGCAAGCCAGCTGCCACCATTTGCA
GTCCAGATTTTTTACTAGATGCTTTAGAACTATGTAACATACTTTAATGGCTGTAGAGCTTTCCAGACA
ATGCCAAATGGATGACTGTGGAATCTCATGAAAGCTTCTTTGGGACACATAAAGATCCATATGAAGAG
TGGTCTTACAGTGACTTCTTCAAGTGAAGTGAATGTTCTTGAGTCACAGATGGTGCTTCCAGTGATTT
ATGAAGTATTTCTCTTGTGCTCTAGCTGAAAGCAAGAGATATCCCTTGAGTCTACCACTTTGCC
ATACTGCTCCCTTAATGAAGGAGATGGCCTTGTTTACCTGTTATAAATCCATCTCTGCCCTGCTTCAG
AATCTTCAGGAATCTAGCCAGTGGGAGTAGCCCTAAGATTTGTGGTTGGTTCAATTTGGTACCTGTCTTC
AGCACTCTGTGTCAAACTTCATGAATGCCACTTTGAGTGAAAAGTTATTTGGAGAGACTACATTAGTTAA
ATCAAGGCATGTTGTTATGGAATTGAAAGAAAAAGCTGTTATTTATCAGGGAAAAATGCTACAACATA
CTCCAGATTTTAAATGTCGCTTGGTAGATCTTGACCTGGCGTTGGGTTACTGCACTCTTCACTC
AAAAAGATGTGTTGAAAACTCTGGAAGCTCATAGATAAAGCATGGCAGAAATTACGACAAAATCTTGGC
AATATCTCTGGTGGGCTCTGAGCTGGCAAGTCTCTATCAGGAAATAGAAATGGGGCTTAAGTTCCGTGAA
CTCAGTACTGATGCCAGTGGGCACTTCTGCTTGGTAACTTGGTATTTCTTTCAACCACTTTTCAGGC
AACATTTTCTCACCAGAAAGACCTCATTAAAGCTCTTGTTGGAGAAATATAGATATGGACACAAGCCTCAT
TTTGGAATATTGCAGCACATTTCAAGTGGAGTGCATGAGTTCTTCAGCTCTTCATTGAAACGCTGCTC
CACAACACAAATGCCGGCAAGGCCAGGGAGATGCAAGCATGGACTCTGCAAGCGCGGCATCCCAAAC
TCCTGGCCAAAGCCCTTGAGATGGTTCCCTTACTGACGAGCAGCAAAAGATTTGGTCATCAGCTTATGTTG
AATACTACATAAGTTGGATCCTTATGACTATGAAATGATTGAAGTTGCTTGAAGTTATAGAAGCAGCT
GATGAAAGATAACCAATATTAATATTAATCAGGCATTGAGTATTCTGAAACATTTGAAGTCATACAGAA
GAATTTCTCTCCCGTGGATCTAGAATATCAGTATATGTTGGAACATGTCATACTTTGCCATCAGCTGC
CCAACTAGACTGCCTTTTACCTGATATTCTTTGGCAGCAGCAGAACTCTGGAATTTCTCTCTACA
GAACTCAGTGAAGAATCTTCCCAACATTGCTCTTAATTTGCAAAATTAATGAAGTTCTCTCTGGACACTC
TGTACGTGTCTACAGCAAAACAGCTTTTCGAAAAAACTGAAGCCAAAGCTCCTGAAGTTAACACAAGC
TAAATCCTCAACACTGATTAAACAAGGAAATAACTAAGTACGCGAGACCATCGAATCCTGCTTACTCTCT
ATAGTCAACCCAGAGTGGGCTGTAGCTATTGCCATCAGCCTTGCCAGGATATCCCTGAAGGTTCTTCA
AGATATCTGCTTTGAAATTTCTGCCTTTATTTAGCTGAGAGATGGCTACAGAAATATCCCATCGCAGGACGA
AAAACGTGAAAAAGCCGAGGCTTTGTTGAAGAAGCTTCATATCCAGTACCGGCATCGGGCAGAGAGCT
GTGCTCATAGCCACAAGCTGAACACTGAGGAATATTTAAGAGTGATCGGAAAGCCAGCACATCTTATTG
TCAGTCTCTACGAACATCTAGCATCAATCAAAGAATTCAGAATTCATCTGGCAGAGATTATCTGATAT
TCATGCAGCAGCTAAAGAAATAGCCGAAGTCAATGAAATTAATTTGAAAAAGCTCTGGGACATGTTGTTG

GAAAAATGGCTATGCCCTTCAACAAAACCTGGTGAAAAACCATCAGAATTATTTGAACTTCAAGAAGATG
 AAGCCCTACGAAGAGTGCAGTATCTCCTCTGTCTCGTCCAATTGATTATAGTTCAAGAATGCTGTTTGT
 ATTTGCAACATCAACTACAACCACATTAGGTATGCATCAGTTAACTTTTGCCCATAGAAGTGCAGCTCTT
 CAGTGTCTCTTCTATTTGGCTGACAAGGAACTATAGAATCTCTCTTTAAAAAACCCATTGAAGAAGTGA
 AATCTTATTTGAGATGTATAACTTTTCTGGCATCATTTGAGACTTTGAATATCCCCATCAGATATGAATT
 ATTTTGCAGCAGTCTAAAGAAGGAATGATTAAGGGTCTGTGAAAAACACAGCCACGAGTCCATGGCA
 GTAAGATTGGTGACTGAGCTGTGTTTGAATACAAAATCTATGACCTGCAGCTTTGGAATGGAAGTCTTGC
 AAAAGCTTCTGGGCTTCAATATGATTCTTATCTAAGGAAAGTTTTAAAAGCCATCTCCAGTATCCATTC
 TTTATGGCAGGTTCCCTACTTCAGCAAGCGTGGCAGCGTGTGATACAGATACCACTGCTTTGAGCCTCT
 TGTCTTTAAGTCTGATCAGCTGTCAGATTGTTCTGAGAGTCTCATCGCTGCTCGAATGTCCAGTCT
 CAGGTGATCTTGACCTGATCGGAGTCGCCAGGCAGTATATCCAGTTAGAACTTCCGGCTTTTGCATTAGC
 TTGTCTGATGCTCATGCCCACTCAGAGAAAAGACACCAGCAAATTAAGAATTTTCTGGGTTCTGTGAC
 CCTCAGGTTATTTTAAAGCAATTGGAAGAGCATATGAACACGGGCCAGCTAGCAGGATTTTACATCAAA
 TTAGAAGTCTGATTTTGAATAATATCATCAATAAGAAGGAGTTTGGGATTTTGGCAAAGACCAAACTT
 TCAAAATGTTGAAGATGCATGCGATGAATACCAACAATATCACTGAGCTAGTGAAGTATTTGGCAAATGAC
 TTAAGTTTATAGTGAAGCTTCAGTCTTGATAACTGAATATTTCAAAGCACTGCGGGAAACCTGTGCCTCCAG
 ACACTGCTCCTGTGAAATCTGAAGATGTTTCTTAGTGGATTATCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG215920 representing NM_014708

Red=Cloning site Green=Tags(s)

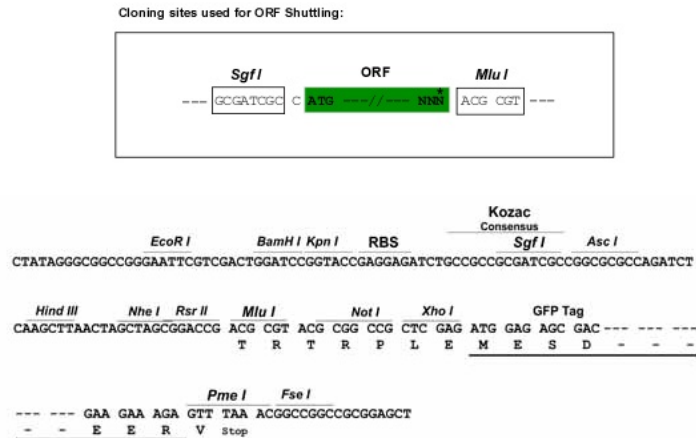
MWNDIELLTNDTSGSYLSVGSRKHEGTALYQVDLLVKISSEKASLNPKIQACSLSDGFIIVADQSVILL
 DSIICRSLQLHLVFDTEVDVVLGCQEGKFLLVGERSGNLHLIHVTSKQTLTNAFVQKANDENRRITYQNLV
 IEKDGSENGTYMILLTYSGFFCITNLQLLKIQQAIENVDSTAKKLQGGIKSSFISTENYHTLGLSLV
 AGDLASEVPVIGGTGNCASFKEWPDSSKKGMTVKNLIDAEIKGAKKFQLIDNLLFVLDTDNVLSLWDI
 YTLTPVWNWPSLHVEEFLLTTEADSPSSVTWQGITNLKLIATASANKMKMNMVYSLPTMEILYSLEVS
 SVSSLVQGTGISTDTIYLLEGVCKNDPKLSEDSVSVLVLRLTEALPENRLSRLHLKHRAFAEESFAIQFG
 LDVELVYVKSNHILEKALSSVDASEQTEWQQLVDDAKENLHKIQDDEFVNVYCLKAQWITYETTQEML
 NYAKTRLLKKEDKTALISDGLKEVLRAHAKLTFYGAFGPEKFSGSSWIEFLNNEDDLKDIFLQLKEGN
 LVCAQYLWLRHRANFESRFDVKMLESLLNSMSASVSLQKLCPWFKNDVIPFVRRTVPEGQIILAKWLEQA
 ARNLELTDKANWPENGLQAEIFFTAECTDELGLASSWHWISLKDYQNTTEEVQCLRTLNVNRELITLHR
 KYNCKLALSDFEKENTTIIVFRMFDKVLAPELIPSILEKFIIRVYMRHDLQEEELLLYIEDLLNRCSK
 STSLFETAWEAKAMAVIACLSDTDLIFDAVLKIMYAAVVPWSAAVEQLVKQHLEMDHPKVLLQESYKLM
 EMKLLLRGYGIREVNLNKEIMRVVYILKQDVPSSLEDALKVAQAFMLSDDEIYSLRIIDLIDREQGED
 CLLLLKSLPPAAEAKTAERVIIWARLALQEEPDSKEGKAWRMSVAKTSVDILKILCDIQKDNLQKKDEC
 EEMKLKFKEVASLQENFEVFLSFEDYSNSSLVADLREQHIKAHEVAQAKHKGSTPEPIAAEVSPSMES
 KLHRQALALQMSKQELEAELTLRALKGNIKTALKKCSDLFKYHCNADTGKLLFTCQKLCQMLADNVVPV
 TVPVGLNLPMSIHDLASQAATICSDFLLDALELCKHTLMAVELSRQCQMDDCGILMKASFQTHKDPYEE
 WSYSDDFFSEDGIVLESQMVLPVIYELISSLVPLAESKRYPLESTSLPYCSLNEGDGLVLPVINSISALLQ
 NLQESSQWELALRFVVGSGFTCLQHSVSNFMNATLSEKLFGETTLVKSRRHVMELKEKAVIFIRENATTL
 LHKVFNCRLLVDLALGYCTLLPQKDVFNWKLIDKAWQNYDKILASLVGSELASLYQEIEMLKLFRE
 LSTDAQWQIRLGKLGISFQPVFRQHFLTKKDLIKALVENIDMTSLILEYCSTFQLDCDAVLQFIETLL
 HNTNAGQGGQDASMDSAKRHPKLLAKALEMVPPLLSTKDLVISLSGILHKLDPYDYMIEVVLKVIERA
 DEKITNININQALSILKHLKSYRISPPVDLEYQYMLEHVITLPSAAQTRLPFHLIFFGTAQNFWKILST
 ELSEESFPTLLLSIKLMKFSLDLTVSTAKHVFEKKLKPILLKTQAKSSTLINKEITKITQTIESCCLS
 IVNPEWAVAIASLAQDIPEGFSFKISALKFCLYLAERWLQNIPSQDEKREKAEALLKKLHIQYRRSGTEA
 VLIAHKLNTTEYLVRVIGKPAHLIVSLYEHPSINQRIQNSSGTDYPDIAHAAKEIAEVNEINLEKVDMLL
 EKWLCPSTKPGKPSSELFQEDEALRRVQYLLSRPIDYSSRMLFVFATSTTTTGLMHQLTFAHRTRAL
 QCLFYLADEKTIKESLFFKPIEEVKSYLECITFLASFETLNIPITYELFCSSPKEGMKGLWKNHSHESMA
 VRLVTELCLEYKIYDLQLWNGLLQKLLGFNMIPYLRKVLKAISSIHSLWQVPYFSKAWQRVQIPLLSAS
 CPLSPDQLSDCSESLIAVLECPVSGDLIGVARQYIQLLEPAFALACMLMPHSEKRRHQIKNFLGSCD
 PQVILKQLEEHMNTGQLAGFSHQIRSLILNININKKEFGILAKTKYFQMLKMHAMNTNINTEL VNYLAND
 LSLDEASVLITEYSKHCCKPVPPDTAPCEILKMFLSGLS

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_014708

ORF Size: 6627 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:

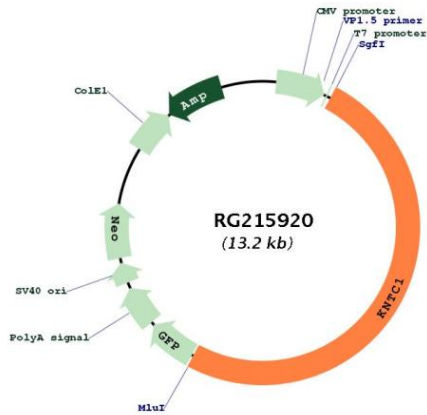
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_014708.6](#)

RefSeq Size:	6965 bp
RefSeq ORF:	6630 bp
Locus ID:	9735
UniProt ID:	P50748
Cytogenetics:	12q24.31
Protein Families:	Druggable Genome, Transcription Factors
Gene Summary:	This gene encodes a protein that is one of many involved in mechanisms to ensure proper chromosome segregation during cell division. Experimental evidence indicated that the encoded protein functioned in a similar manner to that of the Drosophila rough deal protein. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG215920