

Product datasheet for **RC207565**

HEC1 (NDC80) (NM_006101) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HEC1 (NDC80) (NM_006101) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HEC1
Synonyms:	HEC; HEC1; HsHec1; hsNDC80; KNTC2; TID3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC207565 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

 TTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGC**C

ATGAAGCGCAGTTTCAGTTTCCAGCGGTGGTCTGGCCGCCTCTCCATGCAGGAGTTAAGATCCCAGGATG
 TAAATAAACAAGGCCTCTATACCCCTCAAACCAAGAGAAACCAACCTTTGGAAAGTTGAGTATAAACA
 ACCGACATCTGAAAGAAAAGTCTCGCTATTTGGCAAAAGAACTAGTGGACATGGATCCCGGAATAGTCAA
 CTTGGTATATTTTCCAGTTCTGAGAAAATCAAGGACCCGAGACCCTTAATGACAAAGCATTTCATTCAGC
 AGTGTATTCGACAACCTCTGTGAGTTTCTTACAGAAAATGGTTATGCACATAATGTGTCCATGAAATCTCT
 ACAAGCTCCCTCTGTTAAAGACTTCCTGAAGATCTTCACATTTCTTTATGGCTTCCTGTGCCCTCATAC
 GAACTTCCTGACACAAAGTTTGAAGAAGAGGTTCCAAGAATCTTTAAAGACCTTGGGTATCCTTTTGCAC
 TATCCAAAAGCTCCATGTACACAGTGGGGGCTCCTCATACATGGCCTCACATTGTGGCAGCCTTAGTTTG
 GCTAATAGACTGCATCAAGATACATACTGCCATGAAAGAAAGCTCACCTTTATTTGATGATGGGCAGCCT
 TGGGGAGAAGAACTGAAGATGGAATTATGCATAATAAGTTGTTTTGGACTACACCATAAAATGCTATG
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 ATTTAATGTGGATGCTTTTAAGCTGGAATCATTAGAAGCAAAAAACAGAGCATTGAATGAACAGATTGCA
 AGATTGGAACAAGAAAGAGAAAAAGAACCGAATCGTCTAGAGTCGTTGAGAAAACGAAGCTTCCTTAC
 AAGGAGATGTTCAAAAGTATCAGGCATACATGAGCAATTTGGAGTCTCATTACAGCCATTCTTGACCAGAA
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 CGACTACAGAATATCATTGACAACCAAGTACTCAGTTGCAGACATTGAGCGAATAAATCATGAAAGAA
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 GGAGTTAAAATATGCCAGAGGCAAGAAAGCGATTGAAACACAATTAGCAGAGTATCACAATTGGCTAGA
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 AACTGAAGAAGAAATTAATAAGCCCTAAATAAAAAATGGGTTTGGAGGATACTTTAGAACAATTGAAT
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 ACCAACAAAAATTAAGGAAGCAGAGGAAGAGGATGAAAAATGTGCCAGTGAGCTTGAGTCTTGAGAGAA
 ACACAAGCACCTGCTAGAAAGTACTGTTAACCAGGGGCTCAGTGAAGCTATGAATGAATTAGATGCTGTT
 CAGCGGGAATACCACTAGTTGTGCAAAACCACGACTGAAGAAAGACGAAAAGTGGGAAATAACTTGCAAC
 GTCTGTTAGAGATGGTTGCTACACATGTTGGGTCTGTAGAGAAACATCTTGAGGAGCAGATTGCTAAAGT
 TGATAGAGAATATGAAGAATGCATGTCAGAAGATCTCTCGAAAAATTAAGAGATTAGAGATAAGTAT
 GAGAAGAAAGCTACTCTAATTAAGTCTTCTGAAGAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207565 protein sequence
 Red=Cloning site Green=Tags(s)

MRSSVSSGGAGRLSMQELRSQDVNKQGLYTPQTKEKPTFGKLSINKPTSERKVSFLGKRTSGHGSRNSQ
 LGIFSSSEKIKDPRPLNDKAFIQQCIRQLCEFLTENGAYHNVSMKSLQAPSVKDFLKIFTLYGFLCPSY
 ELPDTKFEEVPRIFKDLGYPFALSKSSMYTVGAPHTWPHIVAALVWLIDCIKIHTAMKESSPLFDDGQP
 WGEETEDGIMHNKLFIDYTIKCYESFMSGADSFDEMNAELQSKLKDLFNVD AFKLESLEAKNRLNEQIA
 RLEQEREKEPNRLESRLKASLQGDVQKYQAYMSNLESHSAILDQKLNLNNEIARVELECETIKQENT
 RLQNIIDNQKYSVADIERINHERNELQQTINKLTKDLEAEQQLWNEELKYARGKEAIETQLAEYHKLAR
 KLKLIPKGAENSKGYDFEIKFNPEAGANCLVKYRAQVYVPLKELLNETEEEEINKALNKMGLDLETLN
 AMITESKRSVRTLKEEVQKLDDL YQQKIKEAEEDEKCASELESLEKHKHLESTVNQGLSEAMNELDAV
 QREYQLVVQTTTEERRKVGNNLQRLLEMVATHVGSVEKHLEEQIAKVDREYEECMSEDLSENIKEIRDKY
 EKKATLIKSSSE

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6136_a11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006101

ORF Size: 1926 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_006101.3](#)

RefSeq Size: 2209 bp

RefSeq ORF: 1929 bp

Locus ID: 10403

UniProt ID: [O14777](#)

Cytogenetics: 18p11.32

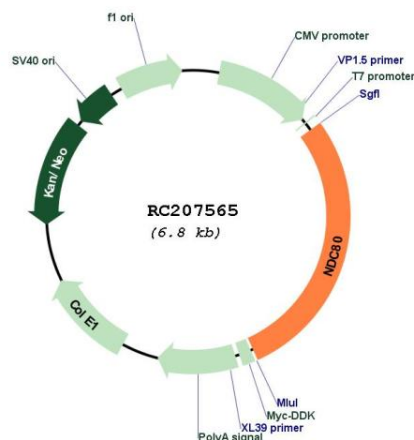
Domains: Ndc80_HEC

Protein Families: Druggable Genome

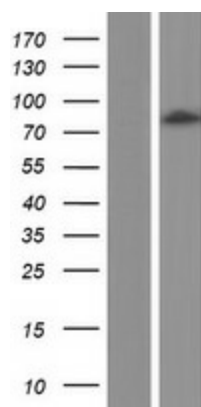
MW: 73.9 kDa

Gene Summary: This gene encodes a component of the NDC80 kinetochore complex. The encoded protein consists of an N-terminal microtubule binding domain and a C-terminal coiled-coiled domain that interacts with other components of the complex. This protein functions to organize and stabilize microtubule-kinetochore interactions and is required for proper chromosome segregation. [provided by RefSeq, Oct 2011]

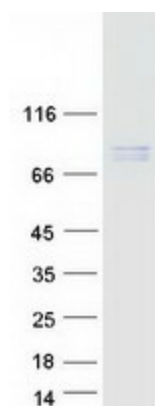
Product images:



Circular map for RC207565



Western blot validation of overexpression lysate (Cat# [LY416865]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207565 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NDC80 protein (Cat# [TP307565]). The protein was produced from HEK293T cells transfected with NDC80 cDNA clone (Cat# RC207565) using MegaTran 2.0 (Cat# [TT210002]).