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Product datasheet for RC202229

HCE (RNGTT) (NM_003800) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HCE (RNGTT) (NM_003800) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HCE
Synonyms:	CAP1A; hCAP; HCE; HCE1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC202229 representing NM_003800
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTCACAACAAGATCCCGCCGCGGTGGCTGAACTGTCCCCGGCGCGGCCAGCCGGTGGCAGGAAGAT
TCTTACCTCTGAAGACAATGTTAGGACCAAGATATGATAGTCAAGTTGCTGAAGAAAATCGGTTCCATCC
CAGCATGCTCTCAAATTACCTAAAGAGCCTAAAGGTTAAAATGGGCTTGTTGGTGGACCTGACAAATACT
TCAAGGTTCTATGACCGAAATGACATAGAAAAAGAAGGAATCAAATATATAAAACTTCAGTGTAAAGGAC
ATGGTGAGTGCCCTACCACTGAGAATACTGAGACCTTTATTCGTCTGTGTGAGCGGTTTAATGAAAGAAA
TCCACCTGAACTTATAGGTGTTCATTGTACTCATGGCTTCAATCGCACTGGTTTCCTCATATGTGCCTTT
TTGGTGGAGAAAATGGATTGGAGTATCGAAGCAGCAGTTGCTACTTTTGCCCAAGCCAGACCACCAGGAA
TCTACAAGGGTGATTATTTGAAGGAACTTTTTCGTCGGTATGGTGACATAGAGGAAGCACCACCCCCACC
TCTATTGCCAGATTGGTGTTTTGAGGATGATGAAGACGAAGATGAGGATGAGGATGGAAAGAAGGAATCA
GAACCCGGGTCAAGTGCTTCTTTTGGCAAAAGGAGAAAAGAACGGTTAAAACTGGGCGCTATTTTCTTGG
AAGGTGTTACTGTTAAAGGTGTAACTCAAGTAACAACACAACCAAAGTTAGGAGAGGTACAGCAGAAGTG
TCATCAATTCTGTGGCTGGGAAGGGTCTGGATTCCCTGGAGCACAGCCTGTTTCCATGGACAAGCAAAAT
ATTAAACTTTTAGACCTGAAGCCATACAAAGTAAGCTGGAAAGCAGATGGTACTCGGTACATGATGTTGA
TTGATGGCACAAATGAAGTTTTTATGATTGATAGAGACAATTCAGTATTTCATGTTTCAAATCTGGAATT
TCCATTTCGTAAAGATCTTCGTATGCATTTATCAAATACTCTCTTGGATGGCGAGATGATTATTGACAGA
GTAAATGGACAGGCTGTTCCTAGATATTTGATATATGACATAATTAAATTCAATTCACAGCCCGTTGGAG
ATTGTGATTTTAATGTTCGTCTGCAGTGTATAGAACGAGAAATTATAAGTCCTCGACACGAAAAAATGAA
GACTGGGCTCATTGACAAAACACAGGAACCATTTAGCGTCAGAAATAAGCCGTTTTTTGACATCTGTACT
TCAAGAAAGCTACTTGAAGGAAATTTTGCCAAAGAAGTGAGCCATGAAATGGATGGACTTATTTTTCAGC
CTACTGGAAAATACAAACCTGGTCGATGTGATGATATTTTGAAATGGAAGCCTCCCAGTCTGAATTCTGT
GGATTTTCGTCTAAAAATAACAAGAATGGGAGGAGAAGGGTTACTTCCTCAGAATGTTGGCCTCCTGTAT
GTTGGAGGTTATGAAAGACCCTTTGCACAAATCAAGGTGACAAAAGAGCTGAAACAGTATGACAACAAAA
TTATAGAATGCAAATTTGAGAACAACAGCTGGGTCTTCATGAGACAGAGAACAGACAAAAGTTTTCCTAA
TGCCTACAACACTGCCATGGCTGTGTGTAACAGCATCTCAAACCCTGTCACCAAGGAGATGCTGTTTGAG
TTCATCGACAGATGTACTGCAGCTTCTCAAGGACAGAAGCGAAAACATCATCTGGACCCTGACACGGAGC
TCATGCCACCACCACCTCCCAAAAGACCACACCCTTTAACC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202229 representing NM_003800
Red=Cloning site Green=Tags(s)

MAHNKIPPRWLNCPRRGQPVAGRFLPLKTMLGPRYDSQVAEENRFHPSMLSNYLKSLKVKMGLLVDLTNT
SRFYDRNDIEKEGIKYIKLQCKGHGECPTTENTETFIRLCERFNERNPPELIGVHCTHGFNRTGFLICAF
LVEKMDWSIEAAVATFAQARPPGIYKGDYLKELFRRYGDIEEAPPPPLLPDWCFEDDEDEDEDEDGKKES
EPGSSASFGKRRKERLKLGAIFLEGVTVKGVTQVTTQPKLGEVQQKCHQFCGWEGSGFPGAQPVSMDKQN
IKLLDLKPYKVSWKADGTRYMMLIDGTNEVFMIDRDNSVFHVSNLEFPFRKDLRMHLSNTLLDGEMIIDR
VNGQAVPRYLIYDIIKFNSQPVGDCDFNVRLQCIEREIISPRHEKMKTGLIDKTQEPFSVRNKPFFDICT
SRKLLEGNFAKEVSHEMDGLIFQPTGKYKPGRCDDILKWKPPSLNSVDFRLKITRMGGEGLLPQNVGLLY
VGGYERPFAQIKVTKELKQYDNKIIECKFENNSWVFMRQRTDKSFPNAYNTAMAVCNSISNPVTKEMLFE
FIDRCTAASQGQKRKHHLDPDTELMPPPPPKRPHPLT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3283_c03.zip

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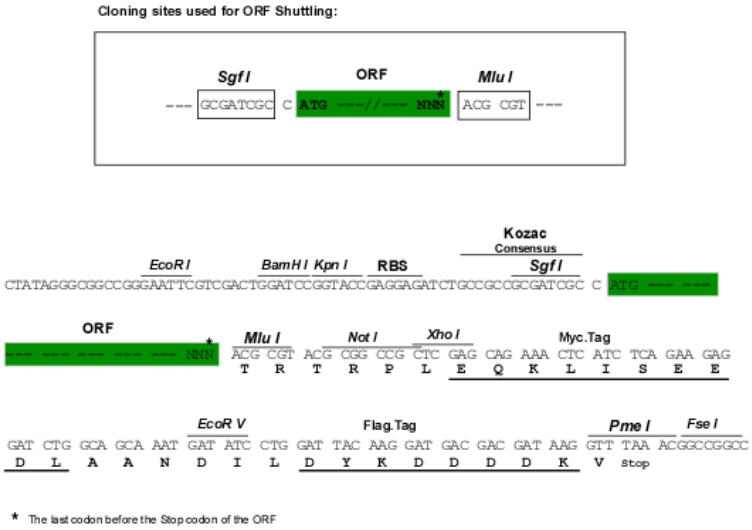
Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003800

ORF Size: 1791 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_003800.5

RefSeq Size: 4460 bp

RefSeq ORF: 1794 bp

Locus ID: 8732

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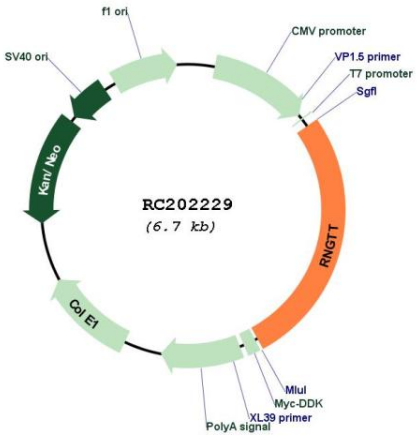
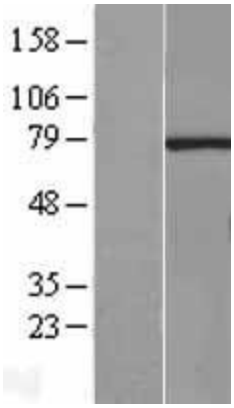
UniProt ID:	O60942
Cytogenetics:	6q15
Domains:	mRNA_cap_C
Protein Families:	Druggable Genome, Phosphatase
MW:	68.4 kDa
Gene Summary:	Bifunctional mRNA-capping enzyme exhibiting RNA 5'-triphosphatase activity in the N-terminal part and mRNA guanylyltransferase activity in the C-terminal part. Catalyzes the first two steps of cap formation: by removing the gamma-phosphate from the 5'-triphosphate end of nascent mRNA to yield a diphosphate end, and by transferring the gmp moiety of GTP to the 5'-diphosphate terminus.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC202229



Western blot validation of overexpression lysate (Cat# [LY401249]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202229 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

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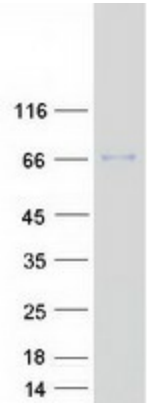

Coomassie blue staining of purified RNGTT protein (Cat# [TP302229]). The protein was produced from HEK293T cells transfected with RNGTT cDNA clone (Cat# RC202229) using MegaTran 2.0 (Cat# [TT210002]).

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