

Product datasheet for **RC204770**

TTC35 (EMC2) (NM_014673) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TTC35 (EMC2) (NM_014673) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TTC35
Synonyms:	KIAA0103; TTC35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204770 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGCGAAGGTCTCAGAGCTTTACGATGTCACTTGGGAAGAAATGAGAGATAAAATGAGAAAATGGAGAG
AAGAAAACCAAGAAATAGTGAGCAAATGTGGAAGTTGGAGAAGAATTAATTAATGAATATGCTTCTAA
GCTGGGAGATGATATTTGGATCATATATGAACAGGTGATGATTGCAGCACTAGACTATGGTCGGGATGAC
TTGGCATTGTTTTGTCTCAAGAGCTGAGAAGACAGTTCCCTGGCAGTCACAGAGTCAAGCGATTAACAG
GCATGAGATTTGAAGCCATGGAAAGATATGATGATGCTATACAGCTATATGATAGGATTTTACAAGAAGA
TCCAACAACTGCTGCAAGAAAGCGTAAGATTGCCATTCGAAAAGCCAGGGGAAAAATGTGGAGGCC
ATTCGGGAGCTGAATGAGTATCTGGAACAATTTGTTGGAGACCAAGAAGCCTGGCATGAACCTGCAGAAC
TTTACATCAATGAACATGACTATGCAAAAGCAGCCTTTTGTGTTAGAGGAACAAATGATGACTAATCCACA
CAACCACTTATACTGTCAGCAGTATGCTGAAGTTAAGTATACCAAGGTGGACTTGAAAACCTCGAACTT
TCAAGAAAGTATTTGACAGGCATTGAACTGAAACAACAGAAATATGAGAGCTTTGTTGGACTTTATA
TGTCGGCAAGTCATATTGCTTCTAATCCAAAAGCAAGTCAAAAACGAAAAAGGACAACATGAAATATGC
TAGTTGGGCAGCTAGTCAAATAAACAGAGCTTATCAGTTTGCAGGTCAAGTAAGAAGGAAACCAATAT
TCTCTTAAGGCTGTCGAAGACATGTTGAAACATTGCAGATCACCCAGTCT

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204770 protein sequence
Red=Cloning site Green=Tags(s)

MAKVSEL YDVTWEEMRDKMRKWREENSRNSEQIVEVEEELINEYASKLGDDIWIIEYQVMI AALDYGRDD
 LALFCLQELRRQFPGSHRVKRLTGMRF EAMERYDDAIQLYDRILQEDPTNTAARKRKIAIRKAQGNVEA
 IRELNEYLEQFVG DQEA WHELAE LYINEHDYAKAAFCL EELMMTNPHNHL YCQQYAEVKYTQGGLENLEL
 SRKYFAQALKLNNRNMRALFGLYMSASHIASNPKASAKTKKDNMKYASWAASQINRAYQFAGRSKKETKY
 SLKAVEDMLETLQITQS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6421_h01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014673

ORF Size: 891 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_014673.5](#)

RefSeq Size: 1268 bp

RefSeq ORF: 894 bp

Locus ID: 9694

UniProt ID: [Q15006](#)

Cytogenetics: 8q23.1

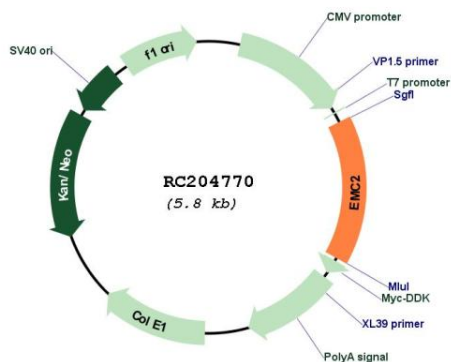
Domains: TPR

Protein Families: Protease

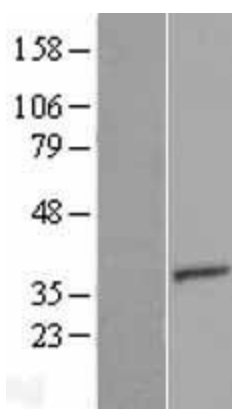
MW: 34.8 kDa

Gene Summary: Part of the endoplasmic reticulum membrane protein complex (EMC) that enables the energy-independent insertion into endoplasmic reticulum membranes of newly synthesized membrane proteins (PubMed:30415835, PubMed:29809151, PubMed:29242231, PubMed:32459176, PubMed:32439656). Preferentially accommodates proteins with transmembrane domains that are weakly hydrophobic or contain destabilizing features such as charged and aromatic residues (PubMed:30415835, PubMed:29809151, PubMed:29242231). Involved in the cotranslational insertion of multi-pass membrane proteins in which stop-transfer membrane-anchor sequences become ER membrane spanning helices (PubMed:30415835, PubMed:29809151). It is also required for the post-translational insertion of tail-anchored/TA proteins in endoplasmic reticulum membranes (PubMed:29809151, PubMed:29242231). By mediating the proper cotranslational insertion of N-terminal transmembrane domains in an N-exo topology, with translocated N-terminus in the lumen of the ER, controls the topology of multi-pass membrane proteins like the G protein-coupled receptors (PubMed:30415835). By regulating the insertion of various proteins in membranes, it is indirectly involved in many cellular processes (Probable). [UniProtKB/Swiss-Prot Function]

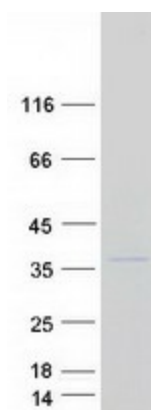
Product images:



Circular map for RC204770



Western blot validation of overexpression lysate (Cat# [LY415127]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204770 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EMC2 protein (Cat# [TP304770]). The protein was produced from HEK293T cells transfected with EMC2 cDNA clone (Cat# RC204770) using MegaTran 2.0 (Cat# [TT210002]).