

Product datasheet for **RC211130**

VCP (NM_007126) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VCP (NM_007126) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	VCP
Synonyms:	CDC48; FTDALS6; p97; TERA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RC211130 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTTCTGAGCCGATTCAAAGGTGATGACCTATCAACAGCCATTCTCAAACAGAAGAACCCTCCCA
 ATCGGTTAATTGTTGATGAAGCCATCAATGAGGACAACAGTGTGGTGTCTTGTCCCAGCCCAAGATGGA
 TGAATTGCAGTTGTTCCGAGGTGACACAGTGTGCTGAAAGGAAAAGAAGAGACGAGAAGCTGTTGCATC
 GTCCTTCTGATGATACTTGTCTGATGAGAAGATTTCGGATGAATAGAGTTGTTCCGGAATAACCTTCGTG
 TACGCCTAGGGGATGTCATCAGCATCCAGCCATGCCCTGATGTGAAGTACGGCAAACGTATCCATGTGCT
 GCCATTGATGACACAGTGAAGGCATTACTGGTAATCTCTTCGAGGTATACCTAAGCCGTA CTTCCTG
 GAAGCGTATCGACCCATCCGAAAGGAGACATTTTCTGTCCGTGGTGGGATGCGTGTGTGGAGTTCA
 AAGTGGTGGAAACAGATCCTAGCCCTTATTGCATTGTTGCTCCAGACACAGTGTCCACTCGGAAGGGGA
 GCCTATCAAACGAGAGGATGAGGAAGAGTCCTTGAATGAAGTAGGTATGATGACATTGGTGGCTGCAGG
 AAGCAGCTAGCTCAGATAAAGGAGATGGTGAAC TGCCCTGAGACATCTGCCCTCTTTAAGGCAATTG
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 TGTAGCAAATGAGACTGGAGCCTTCTTCTTCTTGATCAATGGTCTGAGATCATGAGCAAATGGCTGGT
 GAGTCTGAGAGCAACCTTCGTAAGCCTTTGAGGAGGCTGAGAAGATGCTCCTGCCATCATCTTCATTG
 ATGAGCTAGATGCCATCGCTCCCAAAAGAGAGAAAACATGGCGAGGTGGAGCGGCGCATTGTATCACA
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 AACAGCATTGACCAGCTCTACGGCGATTTGGTCGCTTGACAGGGAGGTAGATATTGGAATTCCTGATG
 CTACAGGACGCTTAGAGATTCTTCAGATCCATACCAAGAACATGAAGCTGGCAGATGATGTGGACCTGGA
 ACAGGTAGCCAATGAGACTCACGGGCATGTGGTGCTGACTTAGCAGCCCTGTGCTCAGAGGCTGCCTCTG
 CAAGCCATCCGCAAGAAGATGGATCTCATTGACCTAGAGGATGAGACCATTGATGCCGAGGTGATGAACT
 CTCTAGCAGTTACTATGGATGACTTCCGGTGGGCCTTGAGCCAGAGTAACCCATCAGCACTGCGGGAAC
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 GAGCTGGTCCAGTATCCTGTGGAGCACCCAGACAAATTCCTGAAGTTTGGCATGACACCTCCAAGGGAG
 TTCTGTTCTATGGACCTCCTGGCTGTGGAAAAC TTTGTTGGCCAAAGCCATTGCTAATGAATGCCAGGC
 CAACTTCATCTCCATCAAGGGTCTGAGCTGCTCACCATGTGGTTTGGGAGTCTGAGGCCAATGTCAGA
 GAAATCTTTGACAAGGCCCGCAAGCTGCCCCCTGTGTGCTATTCTTTGATGAGCTGGATTGCGATTGCCA
 AGGCTCGTGGAGGTAACATTGGAGATGGTGGTGGGCTGCTGACCGAGTCATCAACCAGATCCTGACAGA
 AATGGATGGCATGTCCACAAAAAATGTGTTTCATCATTGGCGCTACCAACCGGCTGACATCATTGAT
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 TTGCCATCCTCAAGGCTAACCTGCGCAAGTCCCGAGTTGCCAAGGATGTGGACTTGGAGTTCTGGCTAA
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 GAATCCATCGAGAGTGAGATTAGGCGAGAACGAGAGAGGCAGACAACCCATCAGCCATGGAGGTAGAAG
 AGGATGATCCAGTGCCTGAGATCCGTGAGATCACTTTGAAGAAGCCATGCGCTTTGCCGCCGCTTCTGT
 CAGTGACAATGACATTCGGAAGTATGAGATGTTTGCCAGACCTTCAGCAGAGTCGGGGCTTTGGCAGC
 TTCAGATTCCTTCAGGGAACCGGGTGGAGCTGGCCCCAGTCAGGGCAGTGGAGCGGCCACAGGTGGCA
 GTGTATACACAGAAGACAATGATGATGACCTGTATGGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC211130 protein sequence
Red=Cloning site Green=Tags(s)

MASGADSKGDDLSTAILKQKNRPNRLIVDEAINEDNSVSVLSQPKMDELQLFRGDTVLLKGKKRREAVCI
VLSDDTCSDEKIRMNRVVRNLRVRLGDVISIQPCPDVKYGKRIHVLPIDDTVEGITGNLFEVYLKPYFL
EAYRPIRKGDIFLVRGGMRAVEFKVVETDPSYCVAPDTVIHCEGEPIKREDEEESLNEVGYYDDIGGCR
KQLAQIKEMVELPLRHPALFKAIGVKPPRGILLYGPPGTGKTLIARAVANETGAFFFLINGPEIMSKLAG
ESESNLKAFEEAEKNAPAIIFIDELDAIAPKREKTHGEVERRIVSQLLTMDGLKQRAHVIVMAATNRP
NSIDPALRRFGRFDREVDIGIPDATGRLEILQIHTKNMKLADDVDLEQVANETHGHVGDLAALCSEAAL
QAIRKKMDLIDLEDETIDAEVMNSLAVTMDDFRWALSQSNPSALRETVVEVPQVTWEDIGGLEDVKRELQ
ELVQYPVEHPDKFLKFGMTPSKGVLFYGGPGCGKTLAKAIANECQANFISIKGPELLTMWFGESEANVR
EIFDKARQAAPCVLFFDELDSIAKARGGNI GDGGGAADRVINQILTEMDGMSTKKNVFIIGATNRPDIID
PAILRPGRLDQLIYIPLPDEKSRVAILKANLRKSPVAKVDLEFLAKMTNGFSGADLTEICQRACKLAIR
ESIESEIRRRERERQTNPSAMEVEEDDPVPEIRRDHFEEAMRFARRSVSDNDIRKYEMFAQTLQQSRGFGS
FRFPSTGQGGAGPSQGGGGTGGSVYTEDNDDDLYG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6139_f07.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_007126

ORF Size: 2418 bp

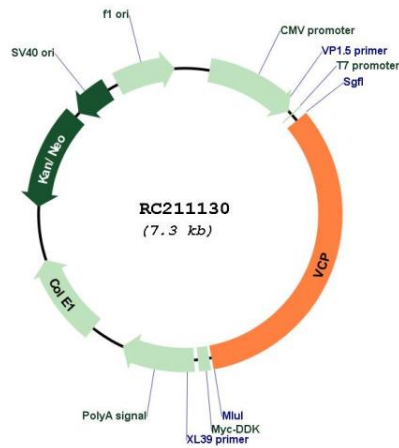
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

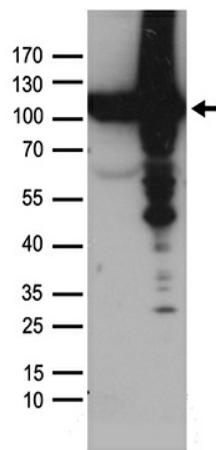
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_007126.5
RefSeq Size:	3859 bp
RefSeq ORF:	2421 bp
Locus ID:	7415
UniProt ID:	P55072
Cytogenetics:	9p13.3
Domains:	cdc48_N, AAA, AAA
MW:	89.3 kDa
Gene Summary:	This gene encodes a member of the AAA ATPase family of proteins. The encoded protein plays a role in protein degradation, intracellular membrane fusion, DNA repair and replication, regulation of the cell cycle, and activation of the NF-kappa B pathway. This protein forms a homohexameric complex that interacts with a variety of cofactors and extracts ubiquitinated proteins from lipid membranes or protein complexes. Mutations in this gene cause IBMPFD (inclusion body myopathy with paget disease of bone and frontotemporal dementia), ALS (amyotrophic lateral sclerosis) and Charcot-Marie-Tooth disease in human patients. [provided by RefSeq, Aug 2017]

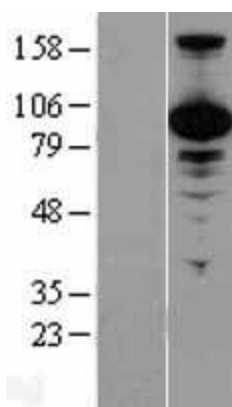
Product images:



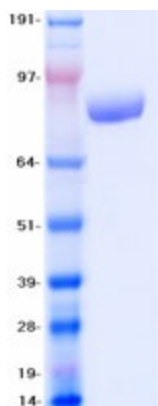
Circular map for RC211130



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY VCP (Cat# RC211130, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-VCP antibody (Cat# [TA890028]). Positive lysates [LY402095] (100ug) and [LC402095] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402095]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211130 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VCP protein (Cat# [TP311130]). The protein was produced from HEK293T cells transfected with VCP cDNA clone (Cat# RC211130) using MegaTran 2.0 (Cat# [TT210002]).