

Product datasheet for **RC217653**

VR1 (TRPV1) (NM_080704) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VR1 (TRPV1) (NM_080704) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	VR1
Synonyms:	VR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC217653 representing NM_080704
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGAAATGGAGCAGCACAGACTTGGGGCAGCTGCGGACCCACTCCAAAAGGACACCTGCCAGACC
 CCCTGGATGGAGACCCTAACTCCAGGCCACCTCCAGCCAAGCCCAGCTCTCCACGGCCAAGAGCCGCAC
 CCGGCTCTTTGGGAAGGGTGACTCGGAGGAGGCTTCCAGTGGATTGCCCTCACGAGGAAGGTGAGCTG
 GACTCCTGCCGACCATCACAGTCAGCCCTGTTATCACCATCCAGAGGCCAGGAGACGGCCCCACCGGTG
 CCAGGCTGCTGTCCAGGACTCTGTGCCGCCAGCACCAGAGAAGACCCTCAGGCTCTATGATCGCAGGAG
 TATCTTTGAAGCCGTTGCTCAGAATAACTGCCAGGATCTGGAGAGCCTGCTGCTTCTGCAGAAGAGC
 AAGAAGCACCTCACAGACAACGAGTTCAAAGACCCTGAGACAGGGAAGACCTGTCTGCTGAAAGCCATGC
 TCAACCTGCACGACGGACAGAACACCACCATCCCCTGCTCCTGGAGATCGCGCGCAAACGGACAGCCT
 GAAGGAGCTTGTCAACGCCAGCTACACGGACAGCTACTACAAGGGCCAGACAGCACTGCACATCGCCATC
 GAGAGACGCAACATGGCCCTGGTACCCTCCTGGTGGAGAACGGAGCAGACGTCCAGGCTGCGGCCCATG
 GGGACTTCTTTAAGAAAACCAAAGGGCGGCCCTGGATTCTACTTCGGTGAAGTCCCTGTCCCTGGCCG
 GTGCACCAACAGCTGGGCATCGTGAAGTTCCTGCTGCAGAACTCCTGGCAGACGGCCGACATCAGCGCC
 AGGGACTCGGTGGGAACACGGTGTGCACGCCCTGGTGGAGGTGGCCGACAACACGGCCGACAACACGA
 AGTTTGTGACGAGCATGTACAATGAGATTCTGATGCTGGGGGCCAAACTGCACCCGACGCTGAAGCTGGA
 GGAGCTCACCAACAAGAAGGGAATGACGCCGCTGGCTCTGGCAGCTGGGACCGGAAGATCGGGGTCTTG
 GCCTATATTCTCCAGCGGAGATCCAGGAGCCCGAGTGCAGGCACCTGTCCAGGAAGTTCACCGAGTGGG
 CCTACGGGCCCGTGCACTCCTCGCTGTACGACCTGTCTGCATCGACACCTGCGAGAAGAAGTCCGTTGCT
 GGAGGTGATCGCCTACAGCAGCAGCGAGACCCCTAATCGCCACGACATGCTCTTGGTGGAGCCGCTGAAC
 CGACTCCTGCAGGACAAGTGGGACAGATTCTGCAAGCGCATCTTCTACTTCAACTTCTGGTCTACTGCC
 TGTACATGATCATCTTACCATGGCTGCCTACTACAGGCCGTTGGATGGCTTGCCTCCCTTAAAGATGGA
 AAAAATTGGAGACTATTTCCGAGTACTGGAGAGATCCTGTCTGTGTTAGGAGGAGTCTACTTCTTTTTTC
 CGAGGGATTAGTATTTCTGCAGAGGCCGCCGTCGATGAAGACCCTGTTTGTGGACAGCTACAGTGAGA
 TGCTTTTCTTCTGCAGTCACTGTTTCTGCTGGCCACCGTGGTGTGACTTCAGCCACCTCAAGGAGTA
 TGTGGCTTCCATGGTATTCTCCCTGGCCTTGGGCTGGACCAACATGCTCTACTACACCCGCGGTTTCCAG
 CAGATGGGCATCTATGCCGTCATGATAGAGAAGATGATCCTGAGAGACCTGTGCCGTTTCTGTTTGTCT
 ACGTCGCTTCTTGTTCGGGTTTTCCACAGCGGTGGTGCAGCTGATTGAAGACGGGAAGAATGACTCCCT
 GCCGCTGAGTCCACGTGCACAGGTGGCGGGGCCCTGCCTGCAGGCCCCCGATAGCTCCTACAACAGC
 CTGTACTCCACCTGCCTGGAGCTGTTCAAGTTCACCATCGGCATGGGCGACCTGGAGTTCCTGAGAACT
 ATGACTTCAAGGCTGTCTTATCATCTCTGCTGGCCTATGTAATTCTCACCTACATCCTCCTGCTCAA
 CATGCTCATCGCCCTCATGGGTGAGACTGTCAACAAGATCGCACAGGAGAGCAAGAACATCTGGAAGCTG
 CAGAGAGCCATCACCATCCTGGACACGGAGAAGAGCTTCTTAAAGTGCATGAGGAAGGCCTTCCGCTCAG
 GCAAGCTGCTGCAGGTGGGTACACACCTGATGGCAAGGACGACTACCGGTGGTGTCTCAGGTTGGACGA
 GGTTGAAGTGGACACCTGGAACACCAACGTGGGCATCATCAACGAAGACCCGGGCAACTGTGAGGGCGTC
 AAGCGCACCTGAGCTTCTCCCTGCGGTCAAGCAGAGTTTCAGGCAGACACTGGAAGAAGTTCCTGCTGG
 TCCCCCTTTAAGAGAGGCAAGTCTCGAGATAGGCACTGCTCAGCCCAGGAAGTTTATCTGCGACA
 GTTTTCAGGGTCTCTGAAGCCAGAGGACGCTGAGGTCTTCAAGAGTCTGCCGCTTCCGGGGAGAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC217653 representing NM_080704
Red=Cloning site Green=Tags(s)

MKKWSSTDLGAAADPLQKDTCPDPLDGDPNRPPPAKPQLSTAKSRTRLFGKGDSEEAFPVDCPHEEGEL
DSCPTITVSPVITIQRPDGPPTGARLLSQDSVAASTEKTLRLYDRRSIFEAVAQNNCQDLESLLLFLQKS
KKHLTDNEFKDPETGKTCLLKAMLNLDHGQNTTIPLLLEIARQTDLSKELVNASYTDSYKGTALHIAI
ERRNMALVTLVENGADVQAAAHGDFFKKTKGRPGFYFGELPLSLAACTNQLGIVKFLQNSWQTADISA
RDSVGNVTLHALVEVADNTADNTKFVTSMYNEILMLGAKLHPTLKLEELTNKKGMTPLALAAGTGKIGVL
AYILQREIQEPECRHLSRKFTWAYGPHSSLYDLSCIDTCEKNSVLEVIAYSSSETPNRHMMLLVEPLN
RLLQDKWDRFVKRIFYFNFLVYCLYMIIFTMAAYRVPDGLPPFKMEKIGDYFRVTGEILSVLGGVYFFF
RGIQYFLQRRPSMKTLFVDSYSEMLFFLQSLFMLATVVLYFSLKEYVASMVFLALGWTNMLYYTRGFQ
QMGYAVMIEKMILRDLCRFMFVYVFLFGFSTAVVTLIEDGKNDSLPESTSHRWRGPACRPPDSSYNS
LYSTCLELKFFTIGMGDLEFTENYDFKAVFIILLLAYVILTYILLNMLIALMGETVNKIAQESKNIWKL
QRAITILDTEKSFLLKCMRKAFRSGKLLQVGYTPDGKDDYRWCFRVDEVNWTWNTNVGIINEDPGNCEGV
KRTLSFSLRSSRVSGRHWKFNALVPLLREASARDRQSAQPPEEVYLRQFSGSLKPEDAIEVFKSPAASGEK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2495_c09.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:


ACCN: NM_080704

ORF Size: 2517 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_080704.4](#)

RefSeq Size: 4191 bp

RefSeq ORF: 2520 bp

Locus ID: 7442

UniProt ID: [Q8NER1](#)

Cytogenetics: 17p13.2

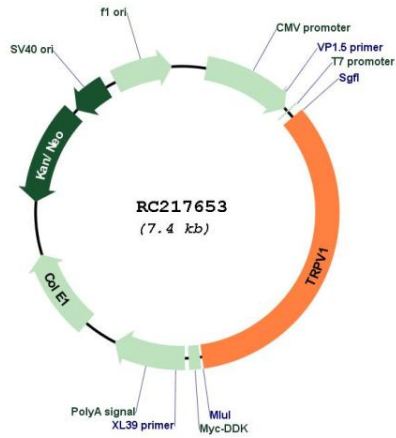
Protein Families: Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

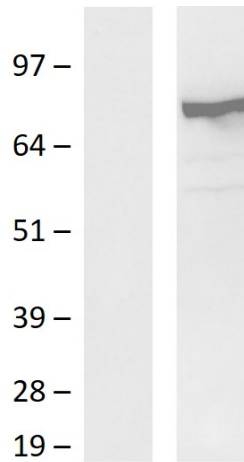
MW: 95 kDa

Gene Summary: Capsaicin, the main pungent ingredient in hot chili peppers, elicits a sensation of burning pain by selectively activating sensory neurons that convey information about noxious stimuli to the central nervous system. The protein encoded by this gene is a receptor for capsaicin and is a non-selective cation channel that is structurally related to members of the TRP family of ion channels. This receptor is also activated by increases in temperature in the noxious range, suggesting that it functions as a transducer of painful thermal stimuli in vivo. Four transcript variants encoding the same protein, but with different 5' UTR sequence, have been described for this gene. [provided by RefSeq, Jul 2008]

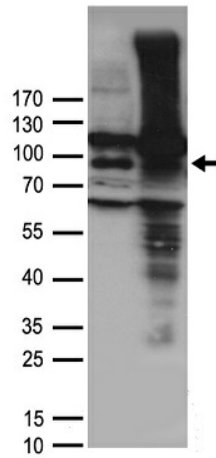
Product images:



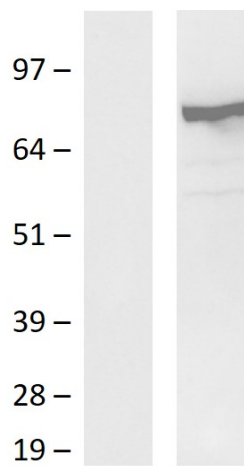
Circular map for RC217653



Western blot validation of overexpression lysate (Cat# [LY403317]) using anti-DDK antibody (Cat# [TA592569]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217653 using transfection reagent PEI.



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TRPV1 (Cat# RC217653, 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-TRPV1 antibody (Cat#[TA890016]). Positive lysates [LY403317] (100ug) and [LC403317] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403317]) using anti-DDK antibody (Cat# [TA592569]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217653 using transfection reagent PEI.