

Product datasheet for **MR227160**

Trpv1 (NM_001001445) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Trpv1 (NM_001001445) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Trpv1
Synonyms:	OTRPC1; TRPV1alpha; TRPV1beta; VR-1; Vr1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MR227160 representing NM_001001445
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGAATGGGCTAGCTTAGACTCGGATGAATCTGAGCCCCAGCCCAAGAGAACTCCTGCCCGGACC
 CTCAGACAGAGACCCTAACTCCAAGCCGCTCCAGCCAAGCCCCACATCTTTGCTACCAGGAGTCGCAC
 CCGGCTTTTTGGGAAGGGTGACTCAGAAGAGCCCTCTCCCATGGACTGCCCTTATGAGGAAGCGGGCTG
 GCCTCCTGCCCTATCATCACCGTCAGCTCTGTTGTCACCTCCAGAGGTCTGTGGATGGACCTACCTGTC
 TCAGGCAGACATCCAGGACTCTGTCTCCACTGGTGTGAGACGCCCAAGGCTCTATGATCGCAGGAG
 CATCTTCGACGCTGTGGCTCAGAGCAACTGCCAGGAGCTGGAGAGCCTGCTGTCTTCTGCAGAAGAGC
 AAGAAGCGCTGACTGACAGCGAGTTCAAAGCCAGAGACGGGAAAGACCTGTCTGCTCAAAGCCATGC
 TCAATCTGCACAATGGGCAGAACGACACCATTGCTCTGCTCCTGGACATTGCCCGGAAGACAGATAGCCT
 GAAGCAGTTTGTCAATGCCAGCTACACAGACAGCTACTACAAGGGCCAGACAGCATTACACATTGCCATT
 GAAAGGCGGAACATGGCACTGGTACCCTCTTGGTGGAGAATGGAGCAGATGTCCAGGCTGCTGCTAACG
 GGGACTTCTTCAAGAAAACCAAGGGAGGCCTGGCTTCTACTTTGGTGAGCTGCCCTGTCCCTGGCTGC
 GTGCACCAACCAGCTGGCCATTGTGAAGTTCCTGCTGCAGAACTCCTGGCAGCCTGCAGACATCAGTGCA
 CGGGATTCCGGTGGCAACACGGTGTGCACGCCCTTGTGGAGGTGGCAGATAACACAGCTGACAACACCA
 AGTTCTGTGACAAACATGTACAACGAGATCCTGATCCTGGGGGCCAAACTCCACCCACACTGAAGCTAGA
 AGAACTCACCAACAAGAAGGGGCTTACACCGCTGGCTCTGGTGCCAGCAGTGGGAAGATTGGGGTCTTG
 GCCTACATCTCCAGAGGAGATCCACGAACAGAGTCCCGGCACCTGTCCAGGAAGTTCAGTGAATGGG
 CCTATGGGCCCGTGCACTCCCTCTTATGACCTGTCTGCATTGACACCTGTGAGAAGAATTCAGTGGG
 GGAGGTGATCGCCTACAGTAGCAGTGAGACCCCAACCGCCACGACATGCTTCTCGTGGAGCCCTTGAAC
 CGACTCCTGCAGGACAAGTGGGACAGATTTGTCAAGCGCATCTTCTACTTCAACTTCTCGTCTACTGCT
 TGTATATGATCATCTTACCACGGCTGCTTACTATCGGCCTGTGGAAGGCTTGCSCCCTATAAGCTGAA
 TAACACCGTTGGGGACTATTTCCGTGTCACTGGAGAGATCCTGTCTGTGTGAGGAGGAGTCACTTCTTC
 TTCCGAGGGATCCAGTATTTCTGCAGAGGCGACCATCCCTCAAGAGTTTGTGGTGGACAGCTACAGTG
 AGATACTTTTCTTGTACAGTCACTGTTATGCTGGTGTCTGTGGTACTGTACTCAGCCATCGCAAGGA
 GTATGTGGCTCCATGGTGTTCCTCCCTGGCCATGGGCTGGACCAACATGCTCTACTACACCCGAGGATTC
 CAGCAGATGGGCATCTATGCTGTATGATTGAGAAGATGATCCTCAGAGACCTGTGTCGGTTTATGTTCCG
 TCTACCTCGTGTCTTGTGGATTTTCCACAGCCGATGTGACTGATCGAGGATGGGAAGAATAACTC
 ACTGCCTGTGGAGTCCCCACCACACAAGTGTGGGGATCTGCCTGCAGGCCAGGTAACCTTACAACAGC
 CTGTATTCCACATGTCTGGAGCTGTTCAAGTTCACCATCGGCATGGGTGACCTGGAGTTCACCGAGA
 ATGACTTCAAGGCTGTCTTATCATCTCTGTTACTGGCCTATGTGATTCTCACCTACATCCTCCTGCTCAA
 CATGCTCATTGCTCTCATGGGCGAGACTGTCAACAAGATTGCACAAGAGAGCAAGAACATCTGGAAGCTG
 CAGCGAGCCATCACCATCCTGGATACAGAGAAGAGTTTCTGAAGTGCATGAGGAAGGCCTCCGCTCCG
 GCAAGCTGCTGCAGGTGGGTTACGCCGACGGCAAGGATGACTTCCGGTGGTGTTCAGGGTGGATGA
 GGTGAACCTGGACTACCTGGAACACCAACGTGGGCATCATCAACGAGGACCCAGGCAACTGTGAGGGCGTC
 AAGCGCACCTGAGCTTCTCCCTGCGGTACGGCCGAGTTTCAGGGAGAACTGGAAGAATTTGCCCTGG
 TTCCCCTTCTGAGGGACGCAAGCACTCGAGATAGGCATAGCACCCAGCCGGAAGAAGTTCAGCTGAAGCA
 CTATACGGGATCCCTTAAGCCAGAGGATGCTGAGGTCTTCAAGGATTCATGGCCCCAGGGGAGAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR227160 representing NM_001001445
Red=Cloning site Green=Tags(s)

MEKWASLDSDESEPPAQENSCPDPPDRDPNSKPPPAKPHIFATRSRTRFLGKGDSEEASPMDCPYEEGGL
ASCP IITVSSVVTLQRSVDGPTCLRQTSQDSVSTGVETPPRLYDRRSIFDAVAQSNQCQELESLLSFLQKS
KKRLTDSEFKDPETGKTCLLKAMLNHNGQNDTIALLLDIARKTDSLKQFVNASYTDSYKGTALHIAI
ERRNMALVTLVENGADVQAAAANGDFKKTKGRPGFYFGEPLSLAACTNQLAIVKFLQNSWQPADISA
RDSVGNVTLHALVEVADNTADNTKFVTNMYNEILILGAKLHPTLKEELTNKKGLTPLALAASSGIGVL
AYILQREIHEPECRHLSRKFTWAYGPHSSLYDLSCIDTCEKNSVLEVIAYSSSETPNRHMMLLVEPLN
RLLQDKWDRFVKRIFYFNFFVYCLYMIIFTTAAAYRPEGLPPYKLNNTVGDYFRVTGEILSVGGVYFF
FRGIQYFLQRRPSLKSFLVDSYSEILFFVQSLFMLVSVVLYF SHRKEYVASMVFLAMGWTNMLYYTRGF
QQMGIYAVMIEKMILRDLCRFMFVYLVFLFGFSTAVVTLIEDGKNNSLPVESPPHKCRGSACRPGNSYNS
LYSTCLELKFFTIGMGDLEFTENYDFKAVFIILLAYVILTYILLNMLIALMGETVNKIAQESKNIWKL
QRAITILDTEKSF LKCMRKAFRSGKLLQVGFTPDGKDDFRWCFRVDEVNWTWNTNVIINEDPGNCEGV
KRTLSFSLRSGRVSGRNWNFALVPLL RDASTRDRHSTQPEEVQLKHYTGSLKPEDA EVFKDSMAPGEK

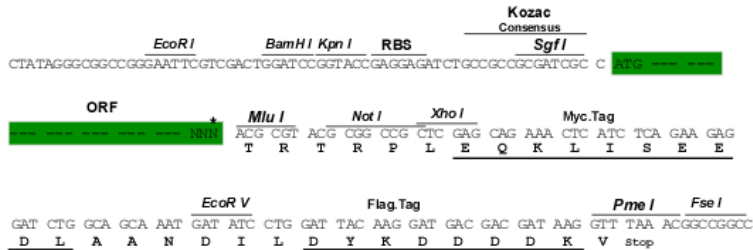
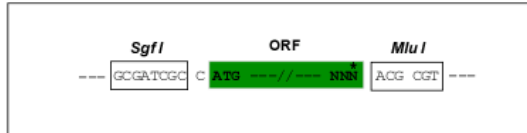
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9012_g12.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_001001445

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.

RefSeq: [NM_001001445.2](#)

RefSeq Size: 2520 bp

RefSeq ORF: 2520 bp

Locus ID: 193034

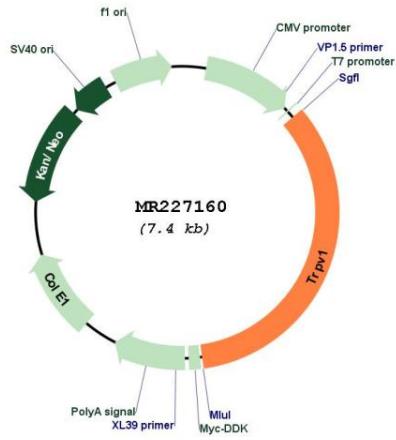
UniProt ID: [Q704Y3](#)

Cytogenetics: 11 45.25 cM

MW: 95.4 kDa

Gene Summary: Ligand-activated non-selective calcium permeant cation channel involved in detection of noxious chemical and thermal stimuli (PubMed:15194687, PubMed:15489017). Seems to mediate proton influx and may be involved in intracellular acidosis in nociceptive neurons. Involved in mediation of inflammatory pain and hyperalgesia (PubMed:10764638). Sensitized by a phosphatidylinositol second messenger system activated by receptor tyrosine kinases, which involves PKC isozymes and PCL. Activation by vanilloids, like capsaicin, and temperatures higher than 42 degrees Celsius, exhibits a time- and Ca(2+)-dependent outward rectification, followed by a long-lasting refractory state. Mild extracellular acidic pH (6.5) potentiates channel activation by noxious heat and vanilloids, whereas acidic conditions (pH <6) directly activate the channel. Can be activated by endogenous compounds, including 12-hydroperoxytetraenoic acid and bradykinin. Acts as ionotropic endocannabinoid receptor with central neuromodulatory effects. Triggers a form of long-term depression (TRPV1-LTD) mediated by the endocannabinoid anandamine in the hippocampus and nucleus accumbens by affecting AMPA receptors endocytosis (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227160