

## Product datasheet for **RC220160**

### TRPV4 (NM\_021625) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TRPV4 (NM_021625) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRPV4
Synonyms:	BCYM3; CMT2C; HMSN2C; OTRPC4; SMAL; SPSMA; SSQTL1; TRP12; VRL2; VROAC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC220160 representing NM\_021625.  
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCACGATCGCC
ATGGCGGATTCCAGCGAAGGCCCCCGCGGGGGCCGGGAGGTGGCTGAGCTCCCCGGGATGAGAGT
GGCACCCAGGTGGGAGGCTTTCTCTCTCCCTGGCCAATCTGTTTGGGGGAGGATGGCTCC
CTTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCTGGCCAGGCGATGGGCGACCAAATCTGCGCATG
AAGTTCAGGGCGCCTTCCGCAAGGGGGTGCCCAACCCCATCGATCTGCTGGAGTCCACCCTATATGAG
TCCTCGGTGGTGCCTGGGCCAAGAAAGCACCCATGGACTCACTGTTTACTACGGCACCTATCGTCAC
CACTCCAGTGACAACAAGAGGTGGAGGAAGAAGATCATAGAGAAGCAGCCGAGACCCCAAGCCCT
GCCCTCAGCCGCCCCCATCCTCAAAGTCTCAACCGGCTATCCTCTTTGACATCGTGTCCGGGGC
TCCACTGCTGACCTGGACGGCTGCTCCATTCTTGTGACCCACAAGAAACGCCTAACTGATGAGGAG
TTTCGAGAGCCATCTACGGGAAGACCTGCCTGCCAAGGCTTGTGAACTGAGCAATGGCCGAAC
GACACCATCCCTGTGCTGCTGGACATCGCGGAGCGCACCGGCAACATGCGGGAGTTCATTAACCGCCC
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GACTACCTGCGGCTGGTGGCGAGGTATTACGCTTCTCACTGGGGTCTGTTCTTCCACCAACATC
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TACTTCATCTACTCTGCTGCTGGTATCGTCTCAGCAGCCCTCTACCTGGCAGGGATCGAGGCTACCTG
GCCGTGATGGTCTTGGCCCTGGTCTGGGCTGGATGAATGCCCTTACTTCAACCGTGGGCTGAGCTG
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TTGCTCTTCATGATCGGCTACGCTTACGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGTG
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CGCTGCGATGGCCACCAGCAGGGTTACCCCGCAAGTGGAGGACTGATGACGCCCGCTC
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

**Protein Sequence:** >Peptide sequence encoded by RC220160  
Blue=ORF Red=Cloning site Green=Tag(s)

MADSSSEGPRAGPGEVAELPGDESGTPGGEAFPLSSLANLFEGEDGSLSPSPADASRPAGPGDGRPNLRM  
KFQGAFRKGVNPNIDLLESTLYESSVVPGPKKAPMDSLFDYGYRHHSSDNKRWRKKIIEKQPQSPKAP  
APQPPPILKVFNRPI LFDIVSRGSTADLDGLLPFL THKKRLTDEEFREPSTGKTRCLPKALLNLSNGRN  
DTIPVLLDIAERTGNMREFINSPFRDIYRGQTALHIAIERRCKHYVELLVAQGADVHAQARGRFQPK  
DEGGYFYFGELPLSLAACTNQPHIVNYLTENPHKKADMRRQDSRGNTVLHALVAIADNTRENTKRVTKM  
YDLLLLKCARLFPDSNLEAVLNNDGLSPLMMAAKTGKIGIFQHIIRREVTDEDTRHLSRKFWDWAYGPV  
YSSLYDLSSLDTCGEEASVLEILVYNSKIENRHEMLAVEPINELLRDKWRKFGAVSFYINVVSYL CAMV  
IFTLTAYYQPLEGTPPYRRTTVDYLR LAGEVITLFTGVLFFFTNIKDLFMKKCPGVNSL FIDGSFQLL  
YFIYSVLVIVSAALYLAGIEAYLAVMVFALVLGWMNALYFTRGLKLTGTYSIMIQLFKDLFRLLVY  
LLFMIGYASALVSLNPCANMKVCNEDQTNCTVPTYPSCRDSETFSTFLDLFKLTIGMGDLEMLSSTK  
YPVVFIIILLVTYIILTFVLLNMLIALMGETVGQVSKESKHIWKLQWATTILDIER SFVFLRKAFRSG  
EMVTVGKSSDGTDDRWCFRVDEVNWSHWNQNLGIINEDPGKNETYQYYGFSHTVGRLRRDRWSSVVR  
VVELNKNSNPDEVVPLDSMGNPRCDGHQGGYPRKWRTDDAPL  
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2611\\_e05.zip](https://cdn.origene.com/chromatograms/mg2611_e05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_021625

**ORF Size:** 2613 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\\_021625.3](#), [NP\\_067638.3](#)

**RefSeq Size:** 3254 bp

**RefSeq ORF:** 2616 bp

**Locus ID:** 59341

**UniProt ID:** [Q9HBA0](#)

**Cytogenetics:** 12q24.11

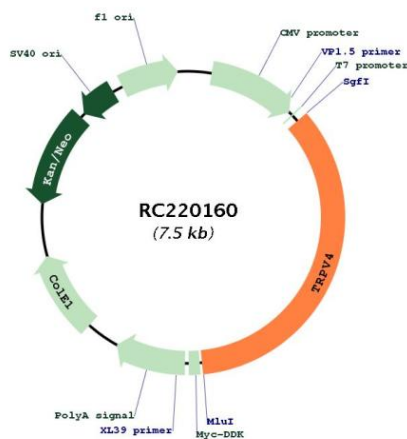
**Domains:** ANK, ion\_trans

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

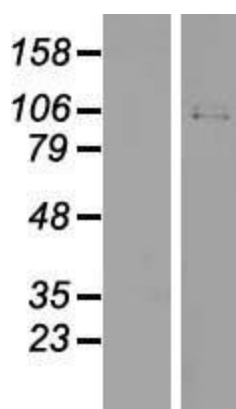
**MW:** 98.3 kDa

**Gene Summary:** This gene encodes a member of the OSM9-like transient receptor potential channel (OTRPC) subfamily in the transient receptor potential (TRP) superfamily of ion channels. The encoded protein is a Ca<sup>2+</sup>-permeable, nonselective cation channel that is thought to be involved in the regulation of systemic osmotic pressure. Mutations in this gene are the cause of spondylometaphyseal and metatropic dysplasia and hereditary motor and sensory neuropathy type IIC. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2010]

### Product images:



Circular map for RC220160



Western blot validation of overexpression lysate (Cat# [LY402865]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220160 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).