

Product datasheet for **RG220160**

TRPV4 (NM_021625) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | TRPV4 (NM_021625) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | TRPV4 |
| Synonyms: | BCYM3; CMT2C; HMSN2C; OTRPC4; SMAL; SPSMA; SSQTL1; TRP12; VRL2; VROAC |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG220160 representing NM_021625.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCACGATCGCC
ATGGCGGATTCCAGCGAAGGCCCCCGCGGGGGCCGGGAGGTGGCTGAGCTCCCCGGGATGAGAGT
GGCACCCAGGTGGGAGGCTTTTCTCTCTCCCTGGCCAATCTGTTTGGGGGGAGGATGGCTCC
CTTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCTGGCCAGGCGATGGGCGACCAAATCTGCGCATG
AAGTTCAGGGCGCCTTCCGCAAGGGGGTGCACCAACCCATCGATCTGCTGGAGTCCACCCTATATGAG
TCCTCGGTGGTGCCTGGGCCAAGAAAGCACCCATGGACTCACTGTTTACTACGGCACCTATCGTCAC
CACTCCAGTGACAACAAGAGGTGGAGGAAGAAGATCATAGAGAAGCAGCCGAGACCCCAAGCCCT
GCCCTCAGCGCCCCCATCTCAAAGTCTCAACCGGCCTATCCTCTTTGACATCGTGTCCGGGGC
TCCACTGCTGACCTGGACGGCTGCTCCATTCTTGTGACCCACAAGAAACGCCTAACTGATGAGGAG
TTTCGAGAGCCATCTACGGGAAGACCTGCCTGCCAAGGCCTTGTGAACCTGAGCAATGGCCGAAC
GACACCATCCCTGTGCTGCTGGACATCGCGGAGCGCACCGGCAACATGCGGGAGTTCATTAACCGCCC
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GATGAGGGGGGCTACTTCTACTTTGGGGAGCTGCCCTGTGCTGGTGCCTGCACCAACAGCCCCAC
ATTGTCAACTACCTGACGGAGAACCCCAACAAGAGCGGACATGCGGCGCCAGGACTCGCGAGGCAAC
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GCGGCGCTCTCGCCCTCATGATGGTGCACAGCGCACCTGTCCCGCAAGTTCAAGGACTGGCCCTATGGCGG
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AAAGACTGTTTCATGAAGAAATGCCCTGGAGTGAATTCTCTTTCATTGATGGCTCCTCCAGCTGCTC
TACTTCATCTACTCTGCTGCTGGTATCGTCTCAGCAGCCCTACCTGGCAGGGATCGAGGCCTACCTG
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ACCTTCTCCTGGACCTGTTAAGCTGACCATCGGCATGGGCGACCTGGAGATGCTGAGCAGCACAAG
TACCCCGTGGTCTTATCATCTGCTGGTGACCTACATCATCCTCACCTTTGTGCTGCTCCTCAACATG
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GTGAACCTGGTCTCACTGGAACCAGAATTGGGCATCATCAACGAGGACCCGGGAAGAATGAGACCTAC
CAGTATTATGGTCTTCGCATACCGTGGGCCGCTCCGACAGGATCGCTGGTCTCGGTGGTACCCCGC
GTGGTGGAACTGAACAAGAAGCTCGAACCCGACGAGGTGGTGGTGCCTCTGGACAGCATGGGGAACCC
CGCTGCGATGGCCACCAGCAGGGTTACCCCGCAAGTGGAGGACTGATGACGCCCGCTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
  
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Protein Sequence: >Peptide sequence encoded by RG220160
 Blue=ORF Red=Cloning site Green=Tag(s)

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MADSSEGPRAGPGEVAELPGDESGTPGGEAFPLSSLANLFEGEDGSLSPSPADASRPAGPGDGRPNLRM
KFQGAFRKGVNPNIDLLESTLYESSVVPGPKKAPMDSLFDYGYRHHSSDNKRWRKKIIEKQPQSPKAP
APQPPPILKVFNRPIILFDIVSRGSTADLDGLLPFLTHKKRLTDEEFREPSTGKTCCLKALLNLSNGRN
DTIPVLLDIAERTGNMREFINSPFRDIYRGQTALHIAIERRCKHYVELLVAQGADVHAQARGRFQPK
DEGGYFYFGELPLSLAACTNQPHIVNYLTENPHKKADMRRQDSRGNTVLHALVAIADNTRENTKRVTKM
YDLLLLKCARLFPDSNLEAVLNNDGLSPLMMAAKTGKIGIFQHIIRREVTDEDTRHLSRKFWDWAYGPV
YSSLYDLSSLDTCGEEASVLEILVYNSKIENRHEMLAVEPINELLRDKWRKFGAVSFYINVVSYLCAMV
IFTLTAYYQPLEGTPPYRTTVDYLRAGEVITLFTGVLFFFTNIKDLFMKKCPGVNSLFDGSGFLL
YFIYSVLVIVSAALYLAGIEAYLAVMVFALVLGWMNALYFTRGLKLTGTYSIMIQLFKDLFRLLVY
LLFMIGYASALVLLNPCANMKVCNEDQTNCTVPTYPSCRDSETFSTFLDLFKLTIGMGDLEMLSSTK
YPVVFIIILLVTYIILTFVLLNMLIALMGETVGQVSKESKHIWKLQWATTILDIERFSPVFLRKAFRSG
EMVTVGKSSDGTDDRWCFRVDEVNWSHWNQNLGIINEDPGKNETYQYYGFSHTVGRLLRRDRWSSVVR
VVELNKNPNDEVVVPLDSMGNPRCDGHQGYPRKWRTDDAPL
TRTRPLEMESESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYTNRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPEL
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKAHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
  
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Restriction Sites: Sgfl-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

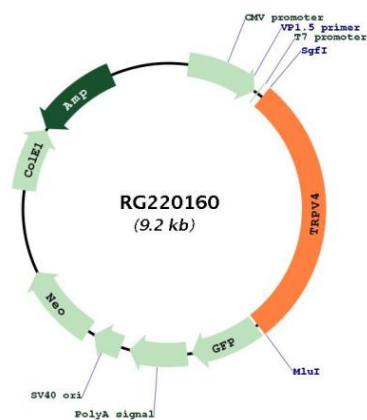
Domains: ANK, ion_trans

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 Ca²⁺-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 RG220160