

Product datasheet for **RC218941**

TRPC4 (NM_016179) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRPC4 (NM_016179) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRPC4
Synonyms:	HTRP-4; HTRP4; TRP4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218941 representing NM_016179
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCTCAGTTCTATTACAAAAGAAATGTTAATGCTCCCTATAGAGACCGCATCCCTCTAAGGATAGTAA
 GAGCAGAATCAGAACTCTCGCCATCAGAAAAAGCCTACTTGAATGCTGTGAAAAAGGAGATTATGCCAG
 TGTCAAGAAATCCCTAGAGGAAGCTGAAATTTATTTTAAAATCAATATTAAATGCAATTGATCCTCTCGGA
 AGAACTGCTCTCCTCATTGCAATTGAAAATGAGAACTGGAGCTCATCGAACTACTCTTAAAGCTTTAATG
 TCTATGTTGGAGATGCTCTATTACATGCTATCAGAAAAGAAGTCGTGGAGCTGTTGAGCTGTTATTGAA
 CCACAAAAACCTAGTGGAGAAAAACAGGTGCCTCCTATACTCCTTGATAAGCAGTTCTCTGAATCACT
 CCAGACATTACCAATCATTGGCAGCCCATACAAATAATTATGAGATAATAAACTCTTGGTTCAGA
 AAGGAGTCTCAGTGCCTCGACCCACGAGGTCCGCTGAACTGTGTGGAATGCGTGTCCAGTTCAGATGT
 GGACAGCTCCGTCACGCTCCAGACTCAACATCTACAAGGCCTTGCCAGTCCCTCTCTCATTGCA
 CTGTCAAGCGAAGATCCTTTTCTCACAGCTTTTCAAGTTAAGTTGGGAACCTCAGGAACTGAGCAAGTGG
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 TCAGACGAGAAGTTCAGAGAAGTGGAAATCATTCTTAATTACCGAGATGACAATAGTCTCATAGAAGAA
 CAAAGTGGAAATGATCTTGCAAGACTAAAATGGCCATTAAGTACCGTCAAAAAGAGTTTGTGGCCAGC
 CCAATTGTCAACAGCTGCTGGCATCTCGCTGGTACGATGAGTTTCCAGGCTGGAGGAGAAGACACTGGGC
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 TGACTTTTTTGTCTGCTGCTGCTTGCCTCTCAGCACATCGACAGGTCAGACTTGAACAGGCAAGTCC
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 GTACTTCTATTATGAAGAAACGAAAGGGTTAACCTGCAAAGGCATAAGATGTGAAAAGCAGAATAATGCA
 TTTTCAACGTTATTTGAGACACTGCAGTCCCTGTTTTGGTCAATATTTGGGCTCATCAATTTATATGTGA
 CCAATGTCAAAGCACAGCATGAATTTACTGAGTTTGTGGTGCCACCATGTTGGGACATACAATGTCAT
 CTCTCTGGTTGTTCTACTCAACATGTTAATAGCTATGATGAATAATTCTTACCAACTGATTGCTGACCAT
 GCAGATATAGAATGGAAATTTGCACGAACAAGCTTTGGATGAGTTATTTGAAAGAGGAGTACTCTGC
 TACTCCCTTCAATGTCATCCCGAGCCCAAGTCTCTCTGGTACCTGATCAAATGGATCTGGACACACTT
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 TCTTCAAATTCGGCAGACTCAGATGAAAAGAGTGATAGCGAAGGTAATAGCAAGGACAAGAAAAAGAAAT
 TCAGCCTTTTTGATTTAACCACCCTGATTCATCCGAGATCAGCAGCAATTGCCTCTGAAAGACATAACAT
 AAGCAATGGCTCTGCCCTGGTGGTTTCAGGAGCCGCCAGGGAGAAGCAGAGAAAAGTGAATTTTGTGACC
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 TCTTCTCTGTTTTCAGAAGAAGTTGCTCGTCAACAGGCTGCAGGACCCTTGAGAGAAAATTTCAACTGGA
 ATCTCGAGGATTAGCTTACGGGGTGACCTGAGCATTCCCGTCTCAGTGAACAATGTGTGTTAGTAGAC
 CATAGAGAAAAGGAATACGGACACACTGGGTTACAGGTAGGAAAAGAGAGTGTGTCCATTCAAGTCAGAGA
 AGGTGGTGGTGGAGGACCGGTTCTATAATACCAAAGGAGAAACATGCAAAGAAGAGGACTCTAGTAT
 AGACTATGATCTAAACCTCCAGACACAGTCACCCACGAAGATTACGTGACCACAAGATTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218941 representing NM_016179
 Red=Cloning site Green=Tags(s)

MAQFYKRNVNAPYRDRIPLRIVRAESELSPSEKAYLNAVEKGDYASVKKSLLEEAEIYFKININCIDPLG
 RTALLIAIENENLELIELLLSFNVVYVDALLHAIRKEVVGAVELLNHHKPSGEKQVPPILLDKQFSEFT
 PDITPIILAAHTNYYEIIKLLVQKGVSVPRPHEVRCNCVECVSSSDVDSLRRHSRSLNIYKALASPSLIA
 LSSEDPFLTAFQLSWELQELSKVENEFKSEYEELSRQCKQFAKDILLDQTRSRELEIILNYRDDNSLIEE
 QSGNDLARLKLAIKYRQKEFVAQPNCQQLLASRWYDEFPGWRRRHAWVKMVTCFIIGLLFPVFSVCYLIA
 PKSPLGLFIRKPFIKFIHTASYLTFLFLLLLASQHIDRSDLNRQGPPTIVEWMILPWVLFWGEIKQ
 MWDGGLQDYIHDWWNLDMFVMSLYLATISLKIVAFVKYSALNPRESWDMWHPTLVAEALFAIANIFSSL
 RLISLFTANSHLGPLQISLGRMLLDILKFLFIYCLVLLAFANGLNQLFYFYEETKGLTCKGIRCEKQNNA
 FSTLFETLQSLFWSIFGLINLYVTNVKAQHEFTEFVGATMFGTYNVISLVLLNMLIAMMNSYQLIADH
 ADIEWKFARTKLWMSYFEEGGTLPTPFNVIPSPKSLWYLKWIWHLCKKKMRRKPESFGTIGRAADNL
 RRRHHQYQEVMRNLVKRYVAAMIRDAKTEEGLTEENFKELKQDISSFRFEVLGLLRGSKLSTIQSANASKE
 SSNSADSDEKSDSEGNSKDKKNFSLFDLTTLIHPRSAIASERHNI SNGSALVVQEPREKQRKVNFTV
 DIKNFGLFHRRSKQNAEQNANQIFSVSEEVARQQAAGPLERNIQLESRGLASRGDLSIPGLSEQCVLVD
 HRRNTDTLGLQVGRVCPFKSEKVVVEDTVPIIPKEKHAKEEDSSIDYDLNLPDVTHTHEDYVTTTL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4775_e07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016179

ORF Size: 2931 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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_016179.4](#)

RefSeq Size: 3440 bp

RefSeq ORF: 2934 bp

Locus ID: 7223

UniProt ID: [Q9UBN4](#)

Cytogenetics: 13q13.3

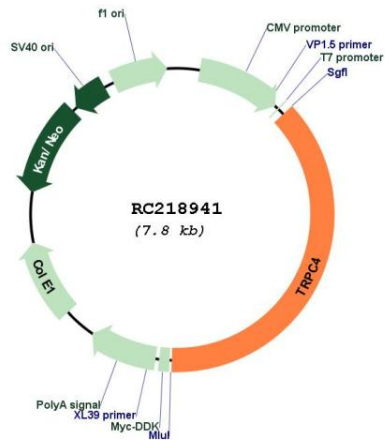
Domains: ANK, ion_trans

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

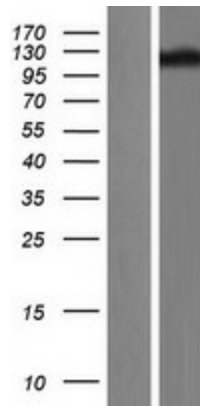
MW: 111.9 kDa

Gene Summary: This gene encodes a member of the canonical subfamily of transient receptor potential cation channels. The encoded protein forms a non-selective calcium-permeable cation channel that is activated by Gq-coupled receptors and tyrosine kinases, and plays a role in multiple processes including endothelial permeability, vasodilation, neurotransmitter release and cell proliferation. Single nucleotide polymorphisms in this gene may be associated with generalized epilepsy with photosensitivity. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Aug 2011]

Product images:



Circular map for RC218941



Western blot validation of overexpression lysate (Cat# [LY402514]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218941 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).