

Product datasheet for **RC209023**

Two pore calcium channel protein 2 (TPCN2) (NM_139075) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Two pore calcium channel protein 2 (TPCN2) (NM_139075) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Two pore calcium channel protein 2
Synonyms:	SHEP10; TPC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC209023 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGAACCCAGGCGGAGTCGGAGCCCTGCTGGCGGGGCCCGCGCGGTGGCGGCGACTGGCCGG
CGGGGCTGACCACTTACCGCAGCATCCAAGTCGGCCCTGGTGCCGCGGCCAGGTGGGACCTCTGCATTGA
TCAGGCTGTGGTCTTCATCGAAGATGCTATTCACTACCGCTCCATCAACCACCGGTGGATGCCAGCTCG
ATGTGGCTTTACCGACGGTATTACTCGAACGTATGCCAACGGACTTTGAGCTTACCATCTTCTTGATCC
TGTTTTTGGCTTTATCGAGACCCATCCTCACTACCAGCACGGCGGACGTGCGCTACCGCGCTGCCCC
CTGGGAGCCGCCCTGCGGCTGACCGAGAGTGTGAGGTGCTCTGCTGCTGGTCTTTGCGGCCGACCTC
TCTGTGAAGGTTACCTGTTGCGGTGGGCCATTTCCAGAAAAACCTTTGGCTGCTGGGCTACCTCGTGG
TGCTGGTGGTGTCTCTGGTGGACTGGACCGTGTCCCTGAGTCTCGTGTGTCATGAGCCCCGCGGATCCG
CCGGCTTCTCCGTCCTTCTTCTGCTGCAGAACTCCTCTATGATGAAGAAGACCTTGAATGCATCCGC
TGGTCGCTGCCGAAATGGCCAGCGTCGGGCTGCTGCTGGCCATCCACCTGTGCCTTCCACCATGTTCCG
GAATGCTGCTGTTGCTGGTGGGAAGCAGGATGATGGGCAGGACAGGGAGAGGCTGACCTACTTCCAGAA
CCTGCCTGAGTCTCTGACTTCCCTCCTGGTGTGCTGACCACGGCCAACAACCCCGATGTGATGATTCT
GCGTATTTCAAGAACCGGCCATATGCCATCTTCTCATAGTCTTCACTGTGATAGGAAGCCTGTTTCTGA
TGAACCTGCTGACAGCCATCATCTACAGTCAGTCCGGGGCTACCTGATGAAATCTCTCCAGACCTCGCT
GTTTCGGAGGCGGCTGGGAACCCGGGCTGCCTTTGAAGTCCTATCCTCCATGGTGGGGGAGGGAGGACC
TTCCCTCAGGCAGTTGGGGTGAAGCCCCAGAACTTGTGTCAGGTGCTTCCAGAAGTCCAGCTGGACAGCT
CCCACAAACAGGCCATGATGGAGAAGTGCCTTCTACGGCAGTGTCTGCTGTGCTGAGGAGTTTCA
GAAGCTTCAACGAGCTTGACAGAAGTGTGGTTAAAGAGCACCCGCGAGGCCCGAGTACCAGTCTCCG
TTTCTGCAGAGGCCCCAGTTCCTTCTCGGCCACTACTACTTTGACTACCTGGGAACTCATCGCCCTGG
CAAACCTGGTGTCCATTTGCGTGTCTCCTGGTGTGGATGCAGATGTGCTGCCTGCTGAGCGTGATGACTT
CATCCTGGGGATTCTCAACTGCGTCTTCACTTGTGTACTACCTGTTGGAGATGCTGCTCAAGGTCTTTGCC
CTGGGCTGCGAGGGTACCTGTCTACCCAGCAACGTGTTTACGGGCTCCTCACCGTTGTCTGCTGG
TTTTGGAGATCTCAACTCTGGCTGTGTACCGATTGCCACACCCAGGCTGGAGGCCGGAGATGGTGGGCT
GCTGTGCTGTGGGACATGACCCGATGCTGAACATGCTCATCGTGTCCGCTTCTGCGTATCATCCCC
AGCATGAAGCCGATGGCCGTGGTGGCCAGTACCGTCTGGGCTGGTGCAGAACATGCGTGTCTTTGGCG
GGATCCTGGTGGTGGTCTACTACGTATTTGCCATCATTGGGATCAACTTGTTTAGAGGCGTCATTGTGGC
TCTTCTGGAAACAGCAGCCTGGCCCTGCCAATGGCTCGGCGCCCTGTGGGAGCTTCGAGCAGCTGGAG
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ACTGGCAGGTGTTTCTGGATGCATATCGGGCTACTCAGGCCCGTGGTCCAAGATCTATTTTGTATTGTG
GTGGCTGGTGTGCTGTGTCATCTGGGTCAACCTGTTTCTGGCCCTGATTCTGGAGAACCTTCTTCAAG
TGGGACCCCGCAGCCACCTGCAGCCCCCTGCTGGGACCCAGAGGCCACCTACCAGATGACTGTGGAGC
TCCTGTTCAAGGATATTCTGGAGAGCCCGAGGAGGATGAGCTCACAGAGAGGCTGAGCCAGCACCCGCA
CCTGTGGCTGTGCAGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209023 protein sequence
 Red=Cloning site Green=Tags(s)

MAEPQAESEPLLGGARGGGDWPAGLTTYRSIQVGPAAARWDLCIDQAVVFIEDAIQYRSINHRVDASS
 MWLYRRYYSNVCQRTLSTFTIFLILFLAFIETPSSLTSTADVRYRAAPWEPPCGLTESVEVLCLLVFAADL
 SVKGYLFGWAHFQKNLWLLGYLVLVSLVDWTVSLSLVCEPLRIRRLLRPFLLQNSSMMKTLKICIR
 WSLPEMASVGLLLAIHLCLFTMFGMLL FAGGKQDDGDRERLTYFQNLPESLTSLLVLLTTANNPDVMIP
 AYSKNRAYAIFFIVFTVIGSLFLMNLITAIISQFRGYLMKSLQTSLFRRLGTRAAFEVLSSMVGEGGA
 FPQAVGVKPNLLQVLQKVLQDSSHKQAMMEKVRSYGSVLLSAEEFQKLFNELDRSVVKEHPPRPEYQSP
 FLQSAQFLFGHYFDYLGNLIALANLVSICVFLVLDADVLPAERDDFILGILNCVFIYVYLLLEMLLKVFA
 LGLRGYLSYPSNVFDGLLTVVLLVLEISTLAVYRLPHPGWRPEMVGLLSLWDMTRMLNMLIVFRFLRIIP
 SMKPMAVVASTVLGLVQNMRAFGGILVVVVYVFAIIGINLFRGVI VALPGNSSLAPANGSAPCGSFEQLE
 YWANNFDDFAAALVTLWNLVVNNWQVFLDAYRRYSGPWSKIYFVWLVSSVIWVNLFLALILENFLHK
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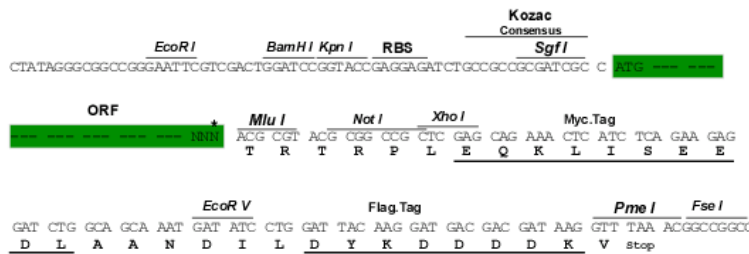
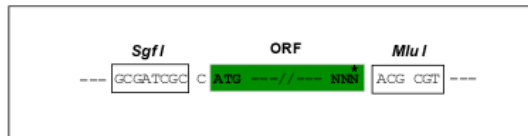
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6230_e06.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_139075

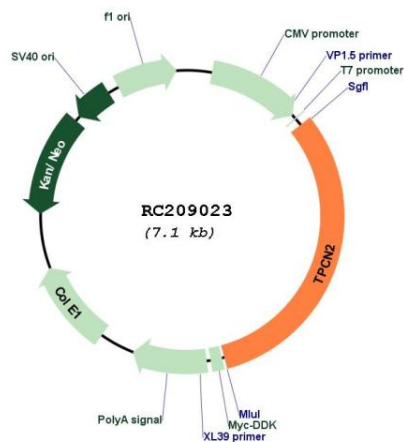
ORF Size: 2256 bp

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](#)

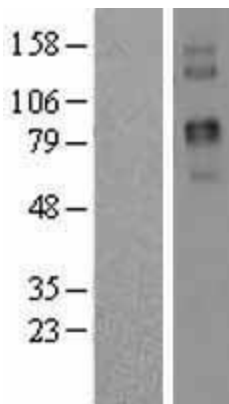
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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:	<u>NM_139075.2</u>
RefSeq Size:	5026 bp
RefSeq ORF:	2259 bp
Locus ID:	219931
UniProt ID:	<u>Q8NHX9</u>
Cytogenetics:	11q13.3
Domains:	ion_trans
Protein Families:	Druggable Genome, Ion Channels: Other
MW:	85.3 kDa
Gene Summary:	This gene encodes a putative cation-selective ion channel with two repeats of a six-transmembrane-domain. The protein localizes to lysosomal membranes and enables nicotinic acid adenine dinucleotide phosphate (NAADP) -induced calcium ion release from lysosome-related stores. This ubiquitously expressed gene has elevated expression in liver and kidney. Two common nonsynonymous SNPs in this gene strongly associate with blond versus brown hair pigmentation.[provided by RefSeq, Dec 2009]

Product images:



Circular map for RC209023



Western blot validation of overexpression lysate (Cat# [LY408417]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209023 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).