

Product datasheet for **RG209023**

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:	TurboGFP
Symbol:	Two pore calcium channel protein 2
Synonyms:	SHEP10; TPC2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>RG209023 representing NM_139075
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGCGGAACCCAGCGGAGTCGGAGCCCTGCTGGCGGGGCCCGCGCGGTGGCGGCGACTGGCCGG
 CGGGGCTGACCACTTACCGCAGCATCCAAGTCGGCCCTGGTGCCGCGGCCAGGTGGGACCTCTGCATTGA
 TCAGGCTGTGGTCTTCATCGAAGATGCTATTCACTACCGCTCCATCAACCACCGGTGGATGCCAGCTCG
 ATGTGGCTTTACCGACGGTATTACTCGAACGTATGCCAACGGACTTTGAGCTTACCATCTTCTTGATCC
 TGTTTTTGGCTTTATCGAGACCCATCCTCACTACCAGCACGGCGGACGTGCGCTACCGCGCTGCCCC
 CTGGGAGCCGCCCTGCGGCTGACCGAGAGTGTGAGGTGCTCTGCTGCTGGTCTTTGCGGCCGACCTC
 TCTGTGAAGGTTACCTGTTGCGGTGGGCCATTTCCAGAAAACCTTTGGCTGCTGGGCTACCTCGTGG
 TGCTGGTGGTGTCTCTGGTGGACTGGACCGTGTCCCTGAGTCTCGTGTGTCATGAGCCCCGCGGATCCG
 CCGGCTTCTCCGTCCTTCTTCTGCTGCAGAACTCCTCTATGATGAAGAAGACCTTGAATGCATCCGC
 TGGTCGCTGCCGAAATGGCCAGCGTCGGGCTGCTGCTGGCCATCCACCTGTGCCTTCCACCATGTTCCG
 GAATGCTGCTGTTGCTGGTGGGAAGCAGGATGATGGGCAGGACAGGGAGAGGCTGACCTACTTCCAGAA
 CCTGCCTGAGTCTCTGACTTCCCTCCTGGTGTGCTGACCACGGCCAACAACCCCGATGTGATGATTCTT
 GCGTATTTCAAGAACCGGCCTATGCCATCTTCTCATAGTCTTCACTGTGATAGGAAGCCTGTTTCTGA
 TGAACCTGCTGACAGCCATCATCTACAGTCAGTTCGGGGCTACCTGATGAAATCTCTCCAGACCTCGCT
 GTTTCGGAGGCGGCTGGGAACCCGGGCTGCCTTGAAGTCCTATCCTCCATGGTGGGGGAGGGAGGAGCC
 TTCCCTCAGGCAGTTGGGGTGAAGCCCCAGAACTTGTGTCAGGTGCTTCCAGAAGTCCAGCTGGACAGCT
 CCCAAAACAGGCCATGATGGAGAAGTGCCTTCTACGGCAGTGTCTGCTGTGCTGAGGATTTCA
 GAAGCTTCAACGAGCTTGACAGAAGTGGTTAAAGAGCACCCGCGAGGCCCGAGTACCAGTCTCCG
 TTTCTGCAGAGCGCCAGTTCCTTCTCGGCCACTACTTTGACTACCTGGGAACTCATCGCCCTGG
 CAAACCTGGTGTCCATTTGCGTGTCTCCTGGTGTGGATGCAGATGTGCTGCCTGCTGAGCGTGACTT
 CATCCTGGGGATTCTCAACTGCGTCTTCACTGTGACTACCTGTTGGAGATGCTGCTCAAGGTCTTTGCC
 CTGGGCTGCGAGGGTACCTGTCTACCCAGCAACGTGTTGACGGGCTCCTACCCTGCTGCTGCTGCTG
 TTTTGGAGATCTCAACTCTGGCTGTGTACCGATTGCCACACCCAGGCTGGAGGCCGAGATGGTGGGCT
 GCTGTGCTGTGGGACATGACCCGATGCTGAACATGCTCATCGTGTCCGCTTCTGCGTATCATCCC
 AGCATGAAGCCGATGGCCGTGGTGGCCAGTACCGTCTGGGCTGGTGCAGAACATGCGTGTCTTTGGCG
 GGATCCTGGTGGTGGTCTACTACGTATTTGCCATCATTGGGATCAACTTGTTTAGAGGCGTCATTGTGGC
 TCTTCTGGAAACAGCAGCCTGGCCCTGCCAATGGCTCGGCGCCCTGTGGGAGCTTCGAGCAGCTGGAG
 TACTGGGCAACAACCTTCGATGACTTTGCGGCTGCCCTGGTCACTCTGTGGAACCTTATGGTGGTGAACA
 ACTGGCAGGTGTTTCTGGATGCATATCGGCGCTACTCAGGCCCGTGGTCCAAGATCTATTTTGTATTGTG
 GTGGCTGGTGTGCTGTGTCATCTGGGTCAACCTGTTTCTGGCCCTGATTCTGGAGAACTTCTTCAACAG
 TGGGACCCCGCAGCCACCTGCAGCCCCCTGCTGGGACCCAGAGGCCACCTACCAGATGACTGTGGAGC
 TCCTGTTCAAGGATATTCTGGAGAGCCCGAGGAGGATGAGCTCACAGAGAGGCTGAGCCAGCACCCGCA
 CCTGTGGCTGTGCAGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG209023 representing NM_139075
 Red=Cloning site Green=Tags(s)

MAEPQAESEPLLGGARGGGDWPAGLTTYRSIQVGPAAARWDLCIDQAVVFIEDAIQYRSINHRVDASS
 MWLYRRYYSNVCQRTLSTFTIFLILFLAFIETPSSLTSTADVRYRAAPWEPPCGLTESVEVLCLLVFAADL
 SVKGYLFGWAHFQKNLWLLGYLVVLVSLVDWTVSLSLVCEPLRIRRLLRPFLLQNSSMMKTLKICIR
 WSLPEMASVGLLLAIHLCLFTMFGMLLFAGGKQDDGQDRERLTYFQNLPESLTSLLVLLTTANPDVMIP
 AYSKNRAYAIFFIIVFTVIGSLFLMNLTAIIYSQFRGYLMKSLQTSLFRRLGTRAAFEVLSMVGEGGA
 FPQAVGVKPNLLQVLQKVLQDSSHKQAMMEKVRSYGSVLLSAEEFQKLFNELDRSVVKEHPPRPEYQSP
 FLQSAQFLFGHYFDYLGNIALANLVSICVFLVLADVLPAERDDFILGILNCVFIYVYLLLEMLLKVFA
 LGLRGYLSYPSNVFDGLLTVVLLVLEISTLAVYRLPHPGWRPEMVGLLSLWDMTRMLNMLIVFRFLRIIP
 SMKPMAVVASTVLGLVQNMRAFGGILVVVVYVFAIIGINLFRGVIIVALPGNSSLAPANGSAPCGSFEQLE
 YWANNFDDFAAALVTLWNLVVNNWQVFLDAYRRYSGPWSKIYVWLWLVSSVIWVNLFLALILENFLHK
 WDPRSHLQPLAGTPEATYQMTVELLFRDILEEPEEDELTERLSQHPHLWLCR

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



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:

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_139075.2](#)

RefSeq Size: 2939 bp

RefSeq ORF: 2259 bp

Locus ID: 219931

UniProt ID: [Q8NHX9](#)

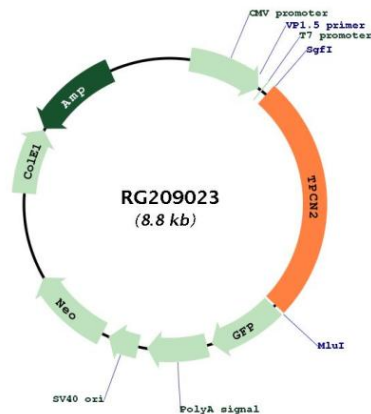
Cytogenetics: 11q13.3

Domains: ion_trans

Protein Families: Druggable Genome, Ion Channels: Other

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 RG209023