

## Product datasheet for **RG230740**

### TRPM6 (NM\_001177311) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TRPM6 (NM_001177311) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TRPM6
Synonyms:	CHAK2; HMGX; HOMG; HOMG1; HSH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG230740 representing NM_001177311 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACAGCGCCGGTTACGTCCCAGAAATCCTGGATTAAGGAGTATTTGACAAGAGAGAATGTAGCACAA  
TCATACCCAGCTCAAAAAATCCTCACAGATGTACTCCAGTATGCCAAGTCTGCCAGAATTTAATCAGGTG  
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GATGTGAAACAGCATACCCTTCTTTTCAGGCTACCGAATAACCTTGATTGACATTGGATTAGTAGTAGAAT  
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 TAGAAATCCCCAGAAGATGATATGCAACTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG230740 representing NM\_001177311  
 Red=Cloning site Green=Tags(s)

MTAPVTSQKSWIKGVFDKRECSTIIPSSKNPHRCTPVCQVCQNLIRCYCGRLIGDHAGIDYSWTISAAGK  
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 QRDLIGKDVVCLYQTLDNPLSKLTTLNSMHSFILSDDGTGKYGNEMKLRRNLEKYLSQLKIHCRSRQG  
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 NFSLKQSKHLFQILMECMVHRDCITIFDADSEEQQDLDLAILTALLKGTNL SASEQLNLAMAWDRVDIAK  
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 FIKDSSLSDSQVGHQLDLSAL TVDTLKVLSAVDTLQEDALLAKRKHSTCKKLPHSWSNVICAEVLGSM  
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 QAHSKYGQFLVPSNLKRVPFSAETVPLSRPVPDVLATEQDIQTEVLVHLTGQTPVSDWASVDEPKE  
 KHEPIAHLLDGQDKAEQVLP TLSCTPEPMTMSSPLSQAQIMQTGGGYVNWAFSEGDETVGFSIKKKWQTC  
 LPSTCSDSSRSEQHQQAQDSSLSDNSTRSAQSSECEVGPWLPNTSFWINPLRRYRPFARSHSFRFH  
 KEEKLMKICKIKNLSGSSEIGQGAWVAKMLTKDRRLSKKKKNTQGLQVPIITVNACSDQLNPEPGEN  
 SISEEEYSKNWFTVSKFSHTGVEPYIHQKMKTKIEIGQCAIQISDYLKQSQEDLSKNSLWNSRSTNLNRNS  
 LLKSSIGVDKISASLKSQEPHHHYSAIERNMLMRLSQTIPFPTVQLFAGEEITVYRLEESSPLNLDKSM  
 SWSQRGRAAMIQVLSREEMDGLRKAMRVVSTWSEDDILKPGQVFIKVSFLPEVVRTWHKIFQESTVLH  
 LCLREIQQRAAQKLIYTFNQVKPQTIPTPRFLEVFLIYCHSANQWLTIEKYMTGEFRKYNNNGDEIT  
 PTNTLEELMLAFSHWYETRGELLVLDLQVGENLTDPSVIKPEVKQSRGMVFGPANLGEDAIRNFIK  
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TRTRPLE - GFP Tag - V

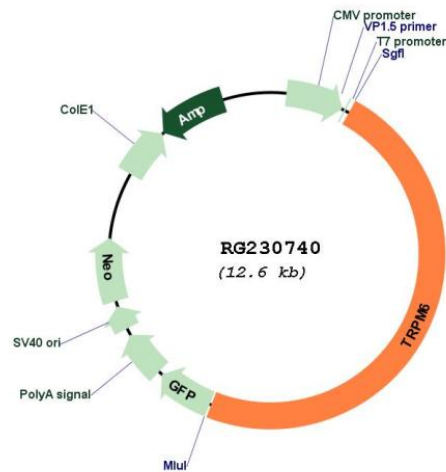
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001177311

ORF Size: 6051 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u>NM_001177311.1, NP_001170782.1</u>
<b>RefSeq Size:</b>	8277 bp
<b>RefSeq ORF:</b>	6054 bp
<b>Locus ID:</b>	140803
<b>UniProt ID:</b>	<u>Q9BX84</u>
<b>Cytogenetics:</b>	9q21.13
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Transient receptor potential, Protein Kinase, Transmembrane
<b>Gene Summary:</b>	This gene is predominantly expressed in the kidney and colon, and encodes a protein containing an ion channel domain and a protein kinase domain. It is crucial for magnesium homeostasis, and plays an essential role in epithelial magnesium transport and in the active magnesium absorption in the gut and kidney. Mutations in this gene are associated with hypomagnesemia with secondary hypocalcemia. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Apr 2010]