

Product datasheet for **RC214997**

IMPG1 (NM_001563) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	IMPG1 (NM_001563) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	IMPG1
Synonyms:	GP147; IPM150; SPACR; VMD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC214997 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATATTTGGAACTAGAAAGAGCTATTTTTGTTTTTTGGATTTTTCTCCAAGTTCAAGGAACCAAGATA
 TCTCCATTAACATATAACCATTCTGAAACTAAAGACATAGACAATCCCCAAGAAATGAAACAACGAAAG
 TACTGAAAAAATGTACAAAATGTCAACTATGAGACGAATATTCGATTTGGCAAAGCATCGAACAAAAAGA
 TCCGCATTTTTCCAACGGGGTTAAAGCTGTCCACAGGAATCCATGAAACAGATTTTAGACAGTCTTC
 AAGCTTATTATAGATTGAGAGTGTGTCAGGAAGCAGTATGGGAAGCATATCGGATCTTTCTGGATCGCAT
 CCCTGACACAGGGGAATATCAGGACTGGGTGAGCATCTGCCAGCAGGAGACCTTCTGCCTCTTTGACATT
 GGAAAAAATTCAGCAATCCCAGGAGCACCTGGATCTTCTCCAGCAGAGAATAAAACAGAGAAGTTTCC
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 AGATGTTGCCAAGTCTCACTTGGGCCCTTCCCTCTCACTCCTGATGACACCCTCCTCAATGAAATTCTC
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 ATATTACCAGGAGCTAGCAGGAAAGTCCCAACTTCAGATGCAAAAAGATATTTAAGAACTTCAGGATTC
 AAAAAATCCATGTGTTAGGATTTAGACCAAAGAAAAGAAAAGATGGCTCAAGCTCCACAGAGATGCAAC
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 ACAGCTACAGACCTCAAAGGCTGATCAGCAAAGCACTAGAGGAAGAACAATCTTTGGATGTGGGGACAA
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 ATCTTTTGTCTGTTATAACAGAGGATGCTACTTTGAGTCCAGAACTTCTCCTGTTGAACCCAGCTTGAG
 ACAGTGGACGGAGCAGAGCATGGTCTACCTGACACTTCTTGGTCTCCACCTGCTATGGCCTCTACCTCCC
 TGTGAGAACTCCACCTTTCTTTATGGCATCAAGCATCTTCTCTGACTGATCAAGGCACCACAGATAC
 AATGGCCACTGACCAGACAATGCTAGTACCAGGGCTCACCATCCCCACCAGTGATTATTCTGCAATCAGC
 CAACTGGCTCTGGGAATTTACATCCACCTGCATCTTCAGATGACAGCCGATCAAGTGCAGGTGGCGAAG
 ATATGGTCAGAGACCTAGATGAAATGGATCTGTCTGACACTCCTGCCCATCTGAGGTACCAGAGCTCAG
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 GGGAGTGTGATTGTAATAGCAAAATGAAGTTTGCTAAGTCAGTGCCGTATAACCTCACCAAGGCTGTGC
 ACGGGGTCTTGGAGGATTTTCGTTCTGCTGCAGCCCAACAACCTCCATCTGGAAAATAGACAGCTACTCTC
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 CAGGTTGCCAGATCACTCTGAAAATCAAGCATACAAAACTAGTGTAAAAAGTTCCAAAATCAACAAAAT
 AACAAAGTAATCAGTAAAAGAAATCTGAATTACTGACCGTAGAATATGAAGAATTTAACCATCAAGATT
 GGAAGGAAAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214997 protein sequence
Red=Cloning site Green=Tags(s)

MYLETRRAIFVFWIFLQVQGTKDISINIYHSETKDIDNPPRNETTESTEKMYKMSTMRRIFDLAKHRTKR
SAFFPTGVKVCPEQESMKQILDLSLQAYYRLRVCQEAVWEAYRIFLDRIPDTGEYQDWVSIQQETFCLFDI
GKNFSNSQEHLDLLQQRKQKRSFPDRKDEISAETLGEGETIIVISTDVANVSLGPFPLTPDDTLLNEIL
DNTLNDTKMPTTERETEFVLEEQRVELSVSLVNQKFAELADSPYQELAGKSQLQMOKIFKKLPGF
KKIHVLGFRPKKEKDGSSSTEMQLTAIFKRHSAEAKSPASDLLSFDSNKIESEEVYHGTMEEDKQPEIYL
TATDLKRLISKALEEQSLDVGTIQFTDEIAGSLPAFGPDTQSELPTSFVITEDATLSPELPPVEPQLE
TVDGAEHGLPDTSWPPAMASTSLSEAPPFMASSIFSLTDQGTDTMATDQTMLVPGLTIPTSDYSAIS
QLALGISHPPASSDDSRSSAGGEDMVRDLDEMDLSDTPAPSEVPELSEYVSVDPHFLEDTPVSALQYIT
TSSMTIAPKGRELVVFFSLRVANMAFSNDLFNKSSLEYRALEQQFTQLLVPYLRNLTGFKLEILNFRN
GSVIVNSKMKFAKSVPYNLTKAVHGVLEDFRSAAAQQLHLEIDSYSLNIEPADQADPCKFLACGEFAQCV
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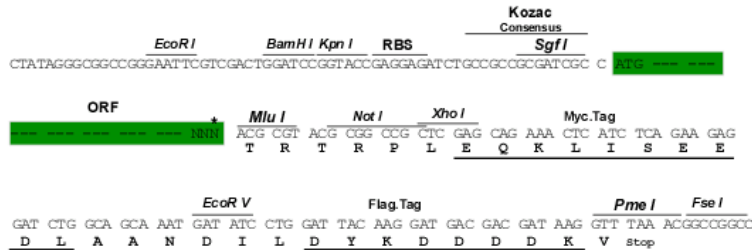
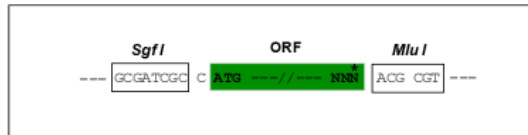
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6688_h11.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001563

ORF Size: 2391 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_001563.4](#)

RefSeq Size: 3576 bp

RefSeq ORF: 2394 bp

Locus ID: 3617

UniProt ID: [Q17R60](#)

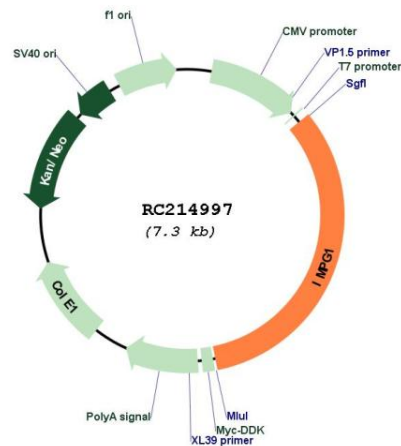
Cytogenetics: 6q14.1

Protein Families: Druggable Genome, Secreted Protein

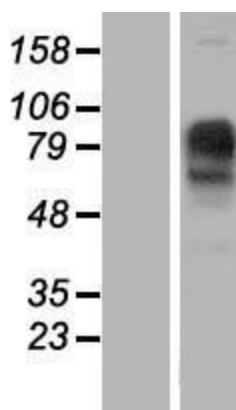
MW: 89.4 kDa

Gene Summary: This gene encodes a protein that is a major component of the retinal interphotoreceptor matrix. The encoded protein is a proteoglycan that is thought to play a role in maintaining viability of photoreceptor cells and in adhesion of the neural retina to the retinal pigment epithelium. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013]

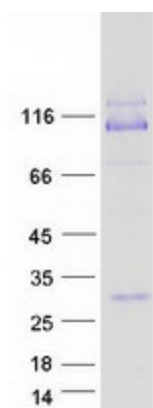
Product images:



Circular map for RC214997



Western blot validation of overexpression lysate (Cat# [LY419855]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214997 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IMPG1 protein (Cat# [TP314997]). The protein was produced from HEK293T cells transfected with IMPG1 cDNA clone (Cat# RC214997) using MegaTran 2.0 (Cat# [TT210002]).