OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC202453

GMPR1 (GMPR) (NM_006877) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GMPR1 (GMPR) (NM_006877) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GMPR1
Synonyms:	GMPR 1; GMPR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC202453 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCCGCATAGATGCGGACCTCAAGCTCGACTTCAAGGATGTCCTGCTCCGACCTAAGCGGAGCAGCC
TCAAGAGCCGAGCCGAGGTGGATCTTGAACGCACCTTCACGTTTCGAAATTCAAAGCAGACCTACTCAGG
GATTCCCATCATCGTGGCCAACATGGACACTGTGGGCACGTTTGAGATGGCAGCCGTGATGTCACAGCAC
TCCATGTTTACAGCAATTCATAAGCATTACTCCCTGGATGACTGGAAGCTCTTTGCCACAAATCACCCAG
AATGCCTGCAGAATGTAGCCGTGAGTTCAGGCAGTGGGCAGAATGATCTGGAAAAGATGACCAGCATCCT
GGAAGCTGTGCCACAGGTTAAGTTTATTTGCCTGGATGTGGCCAATGGGTATTCAGAACATTTTGTGGAA
TTCGTGAAACTTGTCCGTGCCAAATTTCCTGAACACACCATTATGGCAGGGAACGTGGTGACAGGAGAAA
TGGTAGAAGAGCTTATTCTTTCCGGAGCAGATATCATCAAAGTGGGAGTTGGACCAGGTTCTGTGTGCAC
CACCCGCACCAAGACGGGAGTGGGGTACCCCCAGCTGAGTGCCGTCATTGAGTGTGCCGACTCTGCCCAT
GGCCTGAAGGGCCACATCATCTCTGATGGAGGCTGTACGTGTCCAGGGGATGTCGCCAAAGCCTTTGGAG
CTGGAGCAGATTTTGTCATGCTGGGAGGAATGTTTTCGGGTCATACGGAGTGTGCTGGAGAAGTGATTGA
GAGGAACGGACGGAAGCTCAAGCTCTTCTACGGGATGAGCTCTGACACCGCCATGAACAAGCACGCAGGA
GGAGTTGCTGAGTACAGAGCCTCTGAGGGTAAGACTGTGGAAGTTCCTTACAAAGGAGATGTGGAAAACA
CTATCCTGGATATTCTCGGGGGACTGAGGTCCACGTGCACCTACGTGGGGGCCGCCAAACTCAAGGAGCT
CAGCAGGAGGGCAACATTCATCCGGGTGACCCAGCAGCACAACACCGTGTTCAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC202453 protein sequence
Red=Cloning site Green=Tags(s)

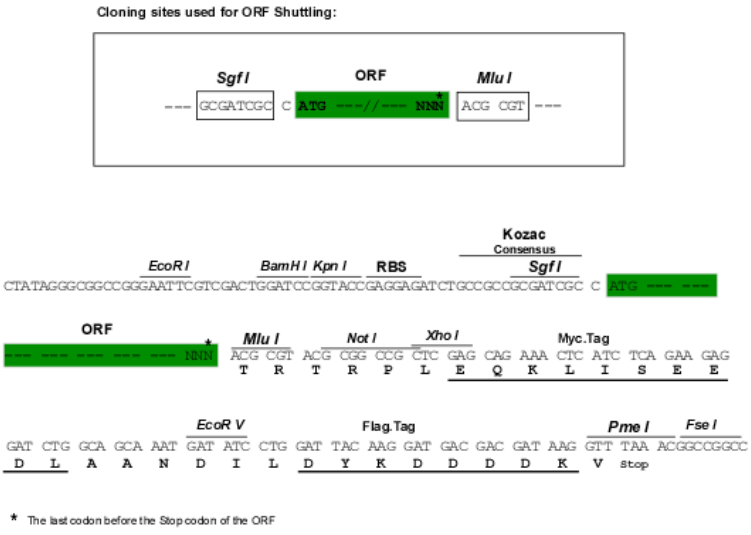
MPRIDADLKLDFKDVLLRPKRSSLKSRAEVDLERTFTFRNSKQTYSGIPIIVANMDTVGTFEMAAVMSQH
SMFTAIHKHYSLDDWKLFATNHPECLQNVAVSSGSGQNDLEKMTSILEAVPQVKFICLDVANGYSEHFVE
FVKLVRAKFPEHTIMAGNVVTGEMVEELILSGADIIKVGVGPGSVCTTRTKTGVGYPQLSAVIECADSAH
GLKGHIISDGGCTPGDVAKAFGAGADFVMLGGMFSGHTECAGEVIERNGRKLKLFYGMSSDTAMNKHAG
GVAEYRASEGKTVEVPYKGDVENTILDILGGLRSTCTYVGAAKLKELSRRATFIRVTQQHNTVFS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6410_d08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006877

ORF Size: 1035 bp

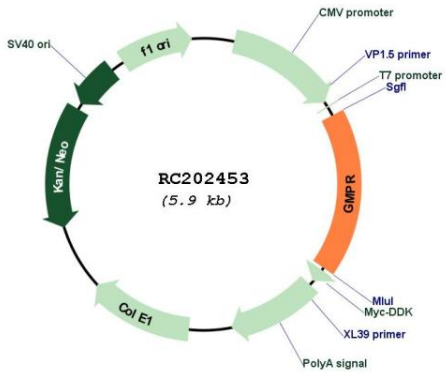
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

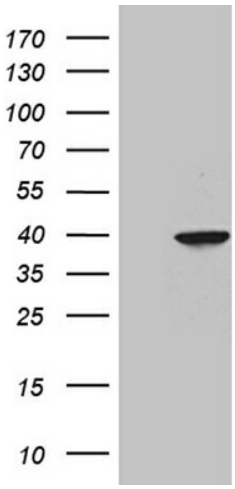
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_006877.2, NP_006868.2
RefSeq Size:	1515 bp
RefSeq ORF:	1038 bp
Locus ID:	2766
UniProt ID:	P36959
Cytogenetics:	6p22.3
Domains:	IMPDH
Protein Families:	Druggable Genome
Protein Pathways:	Purine metabolism
MW:	37.4 kDa
Gene Summary:	This gene encodes an enzyme that catalyzes the irreversible and NADPH-dependent reductive deamination of GMP to IMP. The protein also functions in the re-utilization of free intracellular bases and purine nucleosides.[provided by RefSeq, Oct 2009]

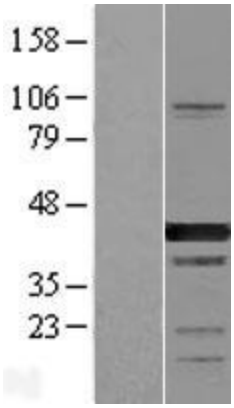
Product images:



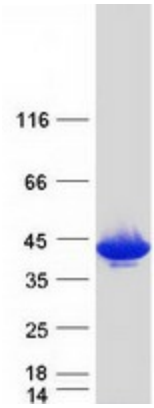
Circular map for RC202453



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GMPR (Cat# RC202453, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GMPR (Cat# [TA811370])(1:500). Positive lysates [LY416357] (100ug) and [LC416357] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416357]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202453 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GMPR protein (Cat# [TP302453]). The protein was produced from HEK293T cells transfected with GMPR cDNA clone (Cat# RC202453) using MegaTran 2.0 (Cat# [TT210002]).