

## Product datasheet for **RC227552**

### IMPA1 (NM\_001144879) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** IMPA1 (NM\_001144879) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** IMPA1  
**Synonyms:** IMP; IMPA; MRT59  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC227552 representing NM\_001144879  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGCTGATCCTTGGCAGGAATGCATGGATTATGCAGTAAGCTCTAGCAAGACAAGCTGGAGAGGTAGTTT  
 GTGAAGCTATAAAAAATGAAATGAATGTTATGCTGAAAAGTTCTCCAGTTGATTTGGTAAGTCTACGGA  
 CAAAAAGTTGAAAAATGCTTATCTCTCCATAAAGGAAAAGTATCCATCTCACAGTTTCATTGGTGAA  
 GAATCTGTGGCAGCTGGGAAAAAGTATCTTAACCGACAACCCACATGGATCATTGACCTATTGATG  
 GAACAATAACTTTGTACATAGATTTCTTTTGTAGCTGTTTCAATTGGCTTTGCTGTAAATAAAAAGAT  
 AGAATTTGGAGTTGTGTACAGTTGTGTGAAGGCAAGATGTACACTGCCAGAAAAGGAAAAGGTGCCTTT  
 TGTAAATGGTCAAAAACACAAGTTTCACAACAAGAAGGATCCGGAGTGTTGGAACAGCAGCTGTTAATAT  
 GTGCCTTTGTGGCAACTGGCGGAGCAGATGCATATTATGAAATGGGAATCACTGCTGGGATGTTGCAGGA  
 GCTGGCATTATTGTTACTGAAGCTGGTGGCGTGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC227552 representing NM\_001144879  
 Red=Cloning site Green=Tags(s)

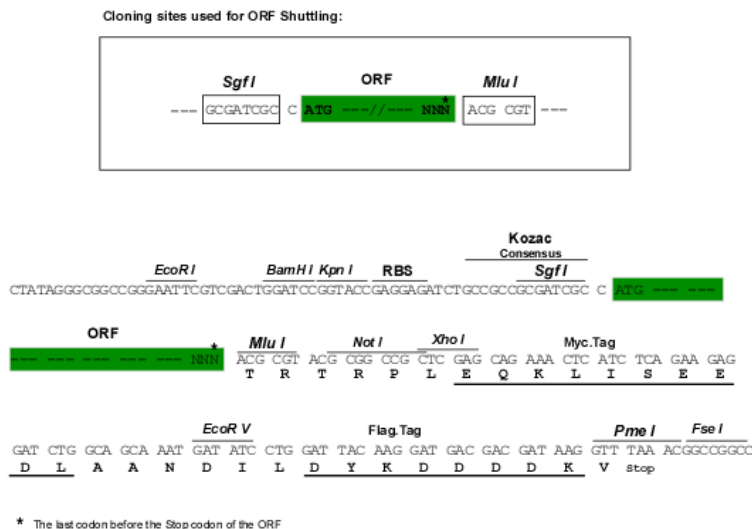
MADPWQECMDYAVTLARQAGEVVCEAIKNEMNMLKSSPVDLVTATDQKVEKMLISSIKEKYPHSFIGE  
 ESVAAGEKSILTDNPTWIIDPIDGTTNFVHRFPFVAVSIGFAVNKKIEFGVYSCVEGKMYTARKGKGAF  
 CNGQKLQVSQEGSGVLEQQLICALWQLAEQMHIMKWEFTAGMLQELALLLLKLVA

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**


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Restriction Sites: Sgfl-MluI

### Cloning Scheme:



ACCN: NM\_001144879

ORF Size: 594 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

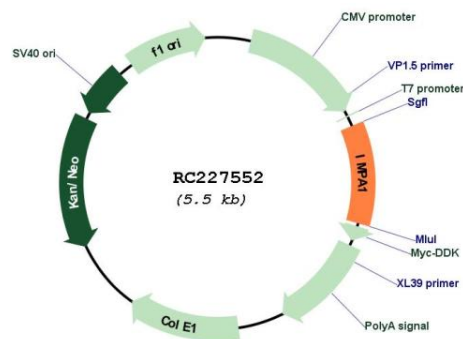
RefSeq: [NM\\_001144879.1](#), [NP\\_001138351.1](#)

RefSeq ORF: 597 bp

Locus ID: 3612

UniProt ID:	<a href="#">P29218</a>
Cytogenetics:	8q21.13
Protein Families:	Druggable Genome
Protein Pathways:	Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system
MW:	21.8 kDa
Gene Summary:	<p>This gene encodes an enzyme that dephosphorylates myo-inositol monophosphate to generate free myo-inositol, a precursor of phosphatidylinositol, and is therefore an important modulator of intracellular signal transduction via the production of the second messengers myo-inositol 1,4,5-trisphosphate and diacylglycerol. This enzyme can also use myo-inositol-1,3-diphosphate, myo-inositol-1,4-diphosphate, scyllo-inositol-phosphate, glucose-1-phosphate, glucose-6-phosphate, fructose-1-phosphate, beta-glycerophosphate, and 2'-AMP as substrates. This enzyme shows magnesium-dependent phosphatase activity and is inhibited by therapeutic concentrations of lithium. Inhibition of inositol monophosphate hydrolysis and subsequent depletion of inositol for phosphatidylinositol synthesis may explain the anti-manic and anti-depressive effects of lithium administered to treat bipolar disorder. Alternative splicing results in multiple transcript variants encoding distinct isoforms. A pseudogene of this gene is also present on chromosome 8q21.13. [provided by RefSeq, Dec 2014]</p>

## Product images:



Circular map for RC227552