

## Product datasheet for **RC202784**

### IMPA1 (NM\_005536) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	IMPA1 (NM_005536) 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:	>RC202784 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGATCCTTGGCAGGAATGCATGGATTATGCAGTAAGCTCTAGCAAGACAAGCTGGAGAGGTAGTTT  
GTGAAGCTATAAAAAATGAAATGAATGTTATGCTGAAAAGTTCTCCAGTTGATTTGGTAAGTCTACGGA  
CCAAAAAGTTGAAAAATGCTTATCTCTCCATAAAGGAAAAGTATCCATCTCACAGTTTCATTGGTGAA  
GAATCTGTGGCAGCTGGGAAAAAAGTATCTTAACCGACAACCCACATGGATCATTGACCCATTGATG  
GAACAACAACTTTGTACATAGATTTCTTTTGTAGCTGTTTCAATTGGCTTTGCTGTAATAAAAAAGAT  
AGAATTTGGAGTTGTGTACAGTTGTGTGAAGGCAAGATGTACACTGCCAGAAAAGGAAAAGGTGCCTTT  
TGTAATGGTCAAAAACTACAAGTCTCACAACAAGAAGATATTACCAAATCTCTCTTGGTGACTGAGTTGG  
GCTCTTCCAGAACACCAGAGACTGTGAGAATGGTTCTTTCTAATATGGAAAAGCTTTTTTGCATTCTGT  
TCATGGGATCCGGAGTGTGGAACAGCAGCTGTTAATAATGTGCCTTGTGGCAACTGGCGGAGCAGATGCA  
TATTATGAAATGGGAATTCAGTCTGGGATGTTGCAGGAGCTGGCATTATTGTTACTGAAGCTGGTGGCG  
TGCTAATGGATGTTACAGGTGGACCATTTGATTTGATGTCACGAAGAGTAATTGCTGCAAATAATAGAAT  
ATTAGCAGAAAAGGATAGCTAAAGAAATTCAGGTTATACCTTTGCAACGAGACGACGAAGAT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

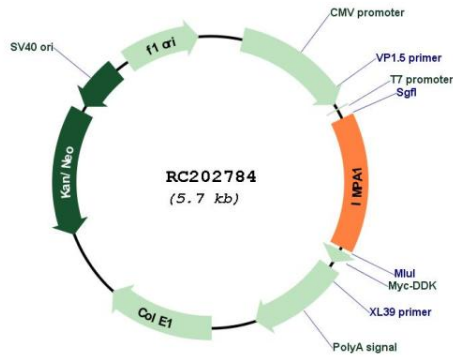


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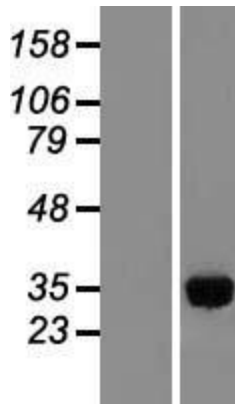


<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and 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>	<a href="#">NM_005536.4</a>
<b>RefSeq Size:</b>	3396 bp
<b>RefSeq ORF:</b>	834 bp
<b>Locus ID:</b>	3612
<b>UniProt ID:</b>	<a href="#">P29218</a>
<b>Cytogenetics:</b>	8q21.13
<b>Domains:</b>	inositol_P
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Inositol phosphate metabolism, Metabolic pathways, Phosphatidylinositol signaling system
<b>MW:</b>	30.2 kDa
<b>Gene Summary:</b>	<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>

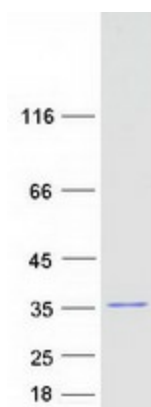
Product images:



Circular map for RC202784



Western blot validation of overexpression lysate (Cat# [LY417241]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202784 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified IMPA1 protein (Cat# [TP302784]). The protein was produced from HEK293T cells transfected with IMPA1 cDNA clone (Cat# RC202784) using MegaTran 2.0 (Cat# [TT210002]).