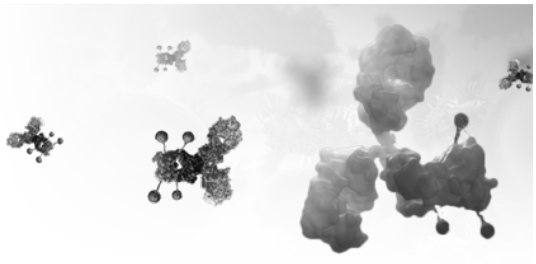

Human IMPA1 peptide (DAG-P1614)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description	This gene encodes an enyzme 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 myoinositol 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 hydroylosis 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, Nov 2009]
Purity	70 - 90% by HPLC.
Conjugate	Unconjugated
Sequence Similarities	Belongs to the inositol monophosphatase family.
Format	Liquid
Preservative	None
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

GENE INFORMATION

Gene Name	IMPA1 inositol(myo)-1(or 4)-monophosphatase 1 [Homo sapiens (human)]
Official Symbol	IMPA1

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Synonyms	IMPA1; inositol(myo)-1(or 4)-monophosphatase 1; IMP; IMPA; inositol monophosphatase 1; IMP 1; IMPase 1; inositol-1(or 4)-monophosphatase 1; lithium-sensitive myo-inositol monophosphatase A1;
Entrez Gene ID	3612
mRNA Refseq	NM_001144878.1
Protein Refseq	NP_001138350.1
UniProt ID	P29218
Chromosome Location	8q21.13-q21.3
Pathway	D-myo-inositol (1,4,5)-trisphosphate degradation, organism-specific biosystem; D-myo-inositol (1,4,5)-trisphosphate degradation, conserved biosystem; Inositol phosphate metabolism, organism-specific biosystem; Inositol phosphate metabolism, organism-specific biosystem; Inositol phosphate metabolism, conserved biosystem; Inositol phosphate metabolism, Ins(1,3,4,5)P4 => Ins(1,3,4)P3 => myo-inositol, organism-specific biosystem; Inositol phosphate metabolism, Ins(1,3,4,5)P4 => Ins(1,3,4)P3 => myo-i
Function	identical protein binding; inositol monophosphate 1-phosphatase activity; inositol monophosphate 1-phosphatase activity; inositol monophosphate 3-phosphatase activity; inositol monophosphate 4-phosphatase activity; metal ion binding; protein homodimerizat

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