

Product datasheet for **MC217123**

Pla2g3 (NM_172791) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pla2g3 (NM_172791) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Pla2g3
Synonyms:	9130003P18Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC217123 representing NM_172791
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGGTCTGGGGTACTTCTAGGAGTCTGGCTTTCCTAGAGGGCTCCCATACCCGTCCTGGGACA
 GTACCTCCTGCCATTTGGTCCAGCCCATCCCTGGTAACCCTCTGGGCTCCCTGAGCTTCTTGGGCAAAGA
 TGCCCAAGGCCTGGCATTATTCCAGGCCTTCTGGGATACACACCACAGGCTGCAGGTTTGTATCAGGCAG
 GATGAATCTGAATTATCACAGCGTTTCAGGGCCCTCTGTGCTCATGAGCCTTTCAGCACTCCTTCATCC
 AAACCCCTGGACCTGCGCTGCAGAGAGCACTGGCCACTCTGCAGAGCCAGTGGGAGGCATGTCAAAGGTC
 TCAGGATAGTCTACAGGAGCCAGGGAGAAGCGAGCAATAGAGCAGAGTGGAGCACCTGCAGAGAGCAC
 CGTCGAAGGAGGAGGCTGGACCATTCTGGCACGCTGTGGTCCGGTGTGGGAACTCTGCTGAAAATG
 CCTCAGAACTGGGCGTGTCCACGGCCCTGACCTCTGCTGCCGGGAACACGATCAGTGCCCAAAACCAT
 TTCCGCCCTTGAGTATACTATGGCATCCGAAATTTCCGCTTCCACACCATCTCTACTGCGACTGTGAC
 GCCAGGTTTCAACAGTGCCTGAGGAGCCAGGGTACTCCATCTCCGACATCATGGGCGTGGCCTTCTTCA
 ACGTGTGGAGATCCCCTGCTTTGTGCTGAAGGAGCAGGAGGCCTGTGTGGCTTGGAACTGGTGGGGCGG
 GTGCAGGGCATATGGCTCCACGCCCTTGTCACTTCGGCCAGGACTTACTATAATGCCTCCTGGAAG
 GCTGAGGCCACCTCATATACTCCAGCCCCAAAGCCAGCACCCAGCAAACACCCACAGAAGAGGGGCC
 CACAGCAGACACAAGCCAGAGCTCACAGCAACTACCACTACACCTTCCAGACCCCTGCCATCTCCTC
 CAGACCTGATATGATCCCAGAGGCCAGCCAGGAGTCCACATCTGGGCTTCCAGGATGGCCAAAACAT
 CAAAGTGGCCACCGAGTCTGTCGAAGCCTTCGCCACCTGGACCAGTGTGAGCACCAGATCAAGCCCCAGG
 AAACCAAGTTCACCTGCTCAACAGTGCCAGATGCCCTTTTCCACTGCGATTGCACCCGCGTCTGGC
 ACGTTTCCCTGAGGCTCCACAGCCCGCTGCAGGCACCGACAAAGTTTGGGATCTCCTGGGTACCACCTGC
 TTTAAGCTGGCCCCCAACTTGACTGTGCTGAGGGCAAAGGCTGTTCCAGAGACCACAGGGCCATTAAGG
 TGTGAGCTCGGCCTTGCAGAGGCTTACAAGAGCCGACTCCATTTCCAGGGATAAAGGCACAGGTGGGGC
 TCTGGCACAGCCTGTGGAGCCCCAGGGAGCACCATGTCATTCTACAGCCAGTGTCTGCAAGTAACCCAG
 GCAATCTGGAGACGCAGGGGACAGAAGAAATTCTGGAGCTCA**AA**

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_172791
- Insert Size:** 1515 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_172791.2](#), [NP_766379.2](#)

RefSeq Size: 2642 bp

RefSeq ORF: 1515 bp

Locus ID: 237625

UniProt ID: [Q8BZT7](#)

Cytogenetics: 11 A1

Gene Summary: Secretory calcium-dependent phospholipase A2 that primarily targets extracellular phospholipids. Hydrolyzes the ester bond of the fatty acyl group attached at sn-2 position of phospholipids without apparent head group selectivity (PubMed:20424323). Contributes to phospholipid remodeling of low-density lipoprotein (LDL) and high-density lipoprotein (HDL) particles. Hydrolyzes LDL phospholipids releasing unsaturated fatty acids that regulate macrophage differentiation toward foam cells (By similarity). May act in an autocrine and paracrine manner (PubMed:23624557). Secreted by immature mast cells, acts on nearby fibroblasts upstream to PTDGS to synthesize prostaglandin D2 (PGD2), which in turn promotes mast cell maturation and degranulation via PTGDR (PubMed:23624557). Secreted by epididymal epithelium, acts on immature sperm cells within the duct, modulating the degree of unsaturation of the fatty acyl components of phosphatidylcholines required for acrosome assembly and sperm cell motility (PubMed:20424323). Facilitates the replacement of fatty acyl chains in phosphatidylcholines in sperm membranes from omega-6 and omega-9 to omega-3 polyunsaturated fatty acids (PUFAs) (PubMed:20424323). Coupled to lipoxygenase pathway, may process omega-6 PUFAs to generate oxygenated lipid mediators in the male reproductive tract (PubMed:20424323). At pericentrosomal preciliary compartment, negatively regulates ciliogenesis likely by regulating endocytotic recycling of ciliary membrane protein (By similarity). Coupled to cyclooxygenase pathway provides arachidonate to generate prostaglandin E2 (PGE2), a potent immunomodulatory lipid in inflammation and tumorigenesis (By similarity). At colonic epithelial barrier, preferentially hydrolyzes phospholipids having arachidonate and docosahexaenoate at sn-2 position, contributing to the generation of oxygenated metabolites involved in colonic stem cell homeostasis (PubMed:28947740). Releases C16:0 and C18:0 lysophosphatidylcholine subclasses from neuron plasma membranes and promotes neurite outgrowth and neuron survival (PubMed:17868035).[UniProtKB/Swiss-Prot Function]