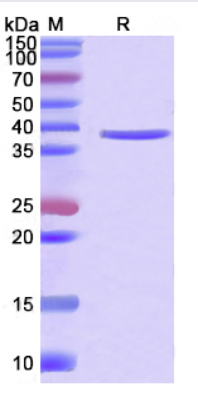
PLCZ1 Human Recombinant Protein

PRODUCT OVERVIEW

Product Name	PLCZ1, Recombinant Protein
Full Product Name	Recombinant Human PLCZ1, N-GST
Product Gene Name	PLCZ1 recombinant protein
Product Synonym Names	1-phosphatidylinositol 4; 5-bisphosphate phosphodiesterase zeta-1; PLCZ1; Testis-development protein NYD-SP27; Phospholipase C-zeta-1; Phosphoinositide phospholipase C-zeta-1; PLC-zeta-1
Host	E coli
Form/Format	Lyophilized from a solution in PBS pH7.4, 0.02% NLS, 1mM EDTA, 4% Trehalose, 1% Mannitol.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 degree C for one week. Store at -20 to -80 degree C for twelve months from the date of receipt.
Molecular Weight	70,411 Da
Sequence Positions	Ser469-Thr572
OMIM	608075
3D Structure	ModBase 3D Structure for Q86YW0
Species	Human
Reconstitution	Reconstitute in sterile water for a stock solution.
Product Categories/Family for PLCZ1 recombinant protein	Recombinant Proteins
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for PLCZ1 recombinant protein	SDS-PAGE (SDS), Western Blot (WB), ELISA (EIA), Immunogen
Related Product Information for PLCZ1 recombinant protein	MBS1575710 is a recombinant protein targeting PLCZ1. Also known as Recombinant Human PLCZ1, N-GST. Host: E coli.
Other Notes	Small volumes of PLCZ1 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



SDS-Page of PLCZ1 recombinant protein
SDS PAGE for recombinant Human PLCZ1 protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PLCZ1. It may not necessarily be applicable to this product.

NCBI GI #	119616796
NCBI GeneID	89869
NCBI Accession #	EAW96390.1
UniProt Primary Accession #	Q86YW0
UniProt Secondary Accession #	Q08AQ7; Q96J70
UniProt Related Accession #	Q86YW0
NCBI Official Full Name	phospholipase C, zeta 1, isoform CRA_c
NCBI Official Synonym Full Names	phospholipase C, zeta 1
NCBI Official Symbol	PLCZ1
NCBI Official Synonym Symbols	PLCzeta; NYD-SP27; PLC-zeta-1
UniProt Protein Name	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase zeta-1
UniProt Synonym Protein Names	Phosphoinositide phospholipase C-zeta-1; Phospholipase C-zeta-1; PLC-zeta-1; Testis-development protein NYD-SP27
Protein Family	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase
UniProt Gene Name	PLCZ1
UniProt Synonym Gene Names	PLC-zeta-1
UniProt Entry Name	PLCZ1_HUMAN
NCBI Protein Information	1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase zeta-1; PI-phospholipase C zeta 1; testis-development related NYD-SP27; phosphoinositide phospholipase C-zeta-1
NCBI Summary for PLCZ1	The protein encoded by this gene is a member of the phosphoinositide-specific phospholipase C family. Members in this family, classified into six isotypes that are tissue- and organ-specific, hydrolyze phosphatidylinositol 4,5-bisphosphate just before the phosphate group to yield diacylglycerol and inositol 1,4,5-trisphosphate. This protein localizes to the acrosome in spermatozoa and elicits Ca(2+) oscillations and egg activation during fertilization that leads to early embryonic development. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2012]

UniProt Comments for PLCZ1	PLCZ1: The production of the second messenger molecules diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) is mediated by activated phosphatidylinositol-specific phospholipase C enzymes. In vitro, hydrolyzes PtdIns(4,5)P2 in a Ca(2+)- dependent manner. Triggers intracellular Ca(2+) oscillations in oocytes solely during M phase and is involved in inducing oocyte activation and initiating embryonic development up to the blastocyst stage. Is therefore a strong candidate for the egg- activating soluble sperm factor that is transferred from the sperm into the egg cytoplasm following gamete membrane fusion. May exert an inhibitory effect on phospholipase-C-coupled processes that depend on calcium ions and protein kinase C, including CFTR trafficking and function. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Phospholipase; Carbohydrate Metabolism - inositol phosphate; EC 3.1.4.11 Chromosomal Location of Human Ortholog: 12p12.3 Cellular Component: perinuclear region of cytoplasm; nucleus; cytosol Molecular Function: signal transducer activity; calcium ion binding; phosphoinositide phospholipase C activity Biological Process: inositol phosphate metabolic process; calcium ion transport; multicellular organismal development; egg activation; lipid catabolic process
Research Articles on PLCZ1	**1.** Male infertility is associated with the aberrant expression, localisation, structure and function of PLCzeta in human sperm. [review]
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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