

Active Recombinant Human PLCG2 protein, Myc/DDK-tagged

Cat. No. PLCG2-203H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant protein of human phospholipase C, gamma 2 (phosphatidylinositol-specific) (PLCG2) with a C-Myc/DDK tag was expressed in HEK293T.
Species	Human
Source	HEK293
Description	The protein encoded by this gene is a transmembrane signaling enzyme that catalyzes the conversion of 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate to 1D-myo-inositol 1,4,5-trisphosphate (IP3) and diacylglycerol (DAG) using calcium as a cofactor. IP3 and DAG are second messenger molecules important for transmitting signals from growth factor receptors and immune system receptors across the cell membrane. Mutations in this gene have been found in autoinflammation, antibody deficiency, and immune dysregulation syndrome and familial cold autoinflammatory syndrome 3.
Bio-activity	Measured by its binding ability in a functional ELISA. When rhvWF-A2 is coated at 1 µg/mL (100 µL/well), the concentration of rhGPV that produces 50% optimal binding response is found to be approximately 10-50 ng/mL. Measured by the ability of the immobilized protein to support the adhesion of thrombin-activated human platelets. When 5×10^6 cells per well are added to rhGPV coated plates (5 µg/mL, 100 µL/well), approximately 50%-70% will adhere after 1 hour at 37 centigrade. Optimal dilutions should be determined by each laboratory for each application.

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Molecular Mass	147.7 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol

GENE INFORMATION

Gene Name	PLCG2 phospholipase C gamma 2 [Homo sapiens (human)]
Official Symbol	PLCG2
Synonyms	PLCG2; phospholipase C gamma 2; FCAS3; APLAID; PLC-IV; PLC-gamma-2; 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase gamma-2; phosphoinositide phospholipase C-gamma-2; phospholipase C, gamma 2 (phosphatidylinositol-specific); phospholipase C-IV; EC 3.1.4.11
Gene ID	5336
mRNA Refseq	NM_002661
Protein Refseq	NP_002652
MIM	600220
UniProt ID	P16885

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