10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PLA2G4E Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP50044

Product Information

Application	WB, IHC
Primary Accession	Q3MJ16
Host	Rabbit
Clonality	polyclonal
Calculated MW	99190

Additional Information

Gene ID	123745
Other Names	Cytosolic phospholipase A2 epsilon, cPLA2-epsilon, Phospholipase A2 group IVE, PLA2G4E
Dilution	WB~~ 1:500-1:1000 IHC~~1:50-1:100
Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol.
Storage Conditions	-20℃

Protein Information

Name	PLA2G4E (HGNC:24791)
Function	Calcium-dependent N-acyltransferase involved in the biosynthesis of N-acyl ethanolamines (NAEs) in the brain (PubMed:29447909). Transfers the sn-1 fatty acyl chain of phosphatidylcholine (fatty acyl donor) to the amine group of phosphatidylethanolamine (fatty acyl acceptor) to generate N-acyl phosphatidylethanolamine (NAPE). Similarly can use plasmenylethanolamine as a fatty acyl acceptor to form N-acyl plasmenylethanolamine (N-Acyl-PlsEt). Both NAPE and N-Acyl-PlsEt can serve as precursors of bioactive NAEs like N-arachidonoyl phosphatidylethanolamine also called anandamide (PubMed:29447909, PubMed:30517655). Has weak phospholipase A2 and lysophospholipase activities (By similarity). Regulates intracellular membrane trafficking that requires modulation of membrane curvature as it occurs by enrichment in lysophospholipids. Promotes tubule formation involved in clathrin-independent endocytotic trafficking and cargo recycling (By similarity).
Cellular Location	Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q50L42}. Early endosome membrane {ECO:0000250|UniProtKB:Q50L42}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q50L42}; Cytoplasmic side

{ECO:0000250|UniProtKB:Q50L42}. Lysosome membrane {ECO:0000250|UniProtKB:Q50L42}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q50L42}; Cytoplasmic side {ECO:0000250|UniProtKB:Q50L42}. Cell membrane {ECO:0000250|UniProtKB:Q50L42}; Peripheral membrane protein; Cytoplasmic side {ECO:0000250|UniProtKB:Q50L42}. Note=Targeted to clathrin-independent endocytotic vesicles through binding to phosphoinositides, especially phosphatidylinositol 4,5-bisphosphates {ECO:0000250|UniProtKB:Q50L42}

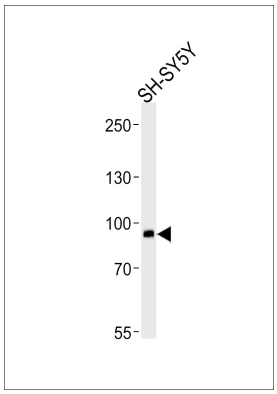
Background

Calcium-dependent phospholipase A2 that selectively hydrolyzes glycerophospholipids in the sn-2 position (By similarity).

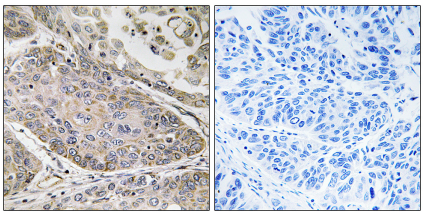
References

Ota T.,et al.Nat. Genet. 36:40-45(2004).
Zody M.C.,et al.Nature 440:671-675(2006).

Images



Western blot analysis of lysates from SH-SY5Y cell line (from left to right),using PLA2G4E Antibody(C15307). C15307 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysates at 35ug per lane.



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue using PLA2G4E antibody.

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