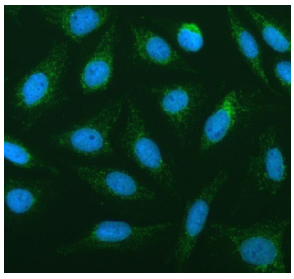
PLA2G6 Antibody / Group VI Phospholipase A2 Antibody (RQ4321)

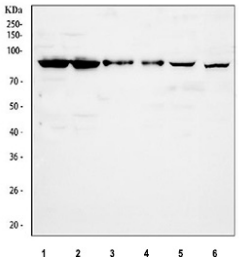
Catalog No.	Formulation	Size
RQ4321	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	O60733
Localization	Cell membrane, cytoplasm
Applications	Western blot: 0.5-1ug/ml Immunofluorescence: 5ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This PLA2G6 Antibody / Group VI Phospholipase A2 Antibody is available for research use only.



PLA2G6 Antibody in Human U-2 OS Osteosarcoma Cells IF. Immunofluorescence testing of PLA2G6 Antibody / Group VI Phospholipase A2 Antibody in FFPE human U-2 OS osteosarcoma cells. HIER was performed by steaming in pH 6 citrate buffer for 20 min. PLA2G6 immunoreactivity (green) is observed predominantly throughout the cytoplasm, with DAPI nuclear counterstaining shown in blue.



PLA2G6 Antibody in Human, Rat and Mouse Lysates WB. Western blot testing of PLA2G6 Antibody / Group VI Phospholipase A2 Antibody at 0.5 ug/ml in 1) human HEL, 2) human Jurkat, 3) human 293T, 4) human K562, 5) rat testis and 6) mouse testis lysates. A strong, discrete PLA2G6 band is observed at approximately 85-90 kDa across all six samples, consistent with the expected molecular weight of the protein and demonstrating detection in human, rat and mouse samples.

Description

PLA2G6 Antibody / Group VI Phospholipase A2 Antibody recognizes phospholipase A2 group VI, a calcium-independent phospholipase encoded by the PLA2G6 gene. Also known as iPLA2 beta and PNPLA9, PLA2G6 belongs to the group VI family of intracellular phospholipases and hydrolyzes the sn-2 acyl bond of glycerophospholipids. This enzymatic activity generates free fatty acids and lysophospholipids and contributes to the regulation and remodeling of cellular membrane lipids. Unlike calcium-dependent phospholipases, PLA2G6 does not require calcium for its catalytic activity.

PLA2G6 contains multiple N-terminal ankyrin repeats and a C-terminal patatin-like phospholipase domain responsible for its catalytic activity. Through its effects on phospholipid composition, the enzyme participates in membrane homeostasis and the generation of lipid-derived signaling molecules. PLA2G6 activity has been associated with phospholipid remodeling, mitochondrial integrity, cell proliferation, signal transduction and cell death, connecting this enzyme to both lipid metabolism and broader cellular regulatory processes.

Altered PLA2G6 function is also important in neurological research. Pathogenic variants in PLA2G6 cause PLA2G6-associated neurodegeneration (PLAN), a spectrum that includes infantile neuroaxonal dystrophy and other neurodegenerative phenotypes. PLA2G6 is additionally known as PARK14 because variants have been associated with dystonia-parkinsonism and early-onset parkinsonian disease. These relationships have made the enzyme an important target for investigating how disruption of membrane lipid homeostasis contributes to neuronal dysfunction and degeneration.

This rabbit polyclonal antibody was generated against a recombinant human PLA2G6 protein corresponding to amino acids 715-802 and is antigen affinity purified. It recognizes human, mouse and rat PLA2G6 and has been validated using Western blot and immunofluorescence. NSJ Bioreagents provides this PLA2G6 Antibody for research into phospholipid metabolism, membrane remodeling and calcium-independent phospholipase biology. A Group VI Phospholipase A2 Antibody can support investigation of this lipid-metabolizing enzyme and its roles in cellular homeostasis and disease-associated processes.

For additional information on PLA2G6 biology and complementary antibody validation, visit our CaI-PLA2 Antibody / Calcium-Independent Phospholipase A2 Antibody page.

Application Notes

Optimal dilution of the PLA2G6 Antibody / Group VI Phospholipase A2 Antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids W715-L802 was used as the immunogen for the PLA2G6 antibody.

Storage

After reconstitution, the PLA2G6 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

PLA2G6 antibody, Group VI Phospholipase A2 antibody, Group VIA Phospholipase A2 antibody, iPLA2 beta antibody, PNPLA9 antibody, PARK14 antibody

Copyright © NSJ Bioreagents. All rights reserved.