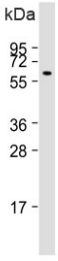
PI4K2A Antibody (F54452)

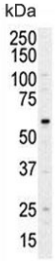
Catalog No.	Formulation	Size
F54452-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54452-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

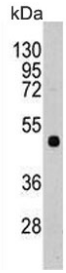
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Protein A affinity
UniProt	Q9BTU6
Applications	Western Blot : 1:500-1:2000 Immunofluorescence : 1:25 Immunohistochemistry (FFPE) : 1:25
Limitations	This PI4K2A antibody is available for research use only.



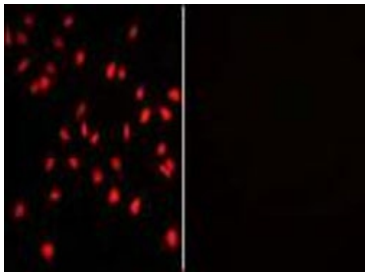
Western blot testing of human kidney lysate with PI4K2A antibody. Predicted molecular weight ~54 kDa.



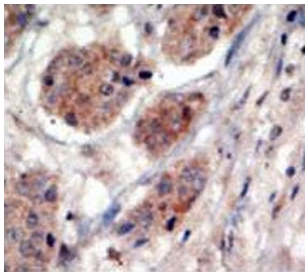
Western blot testing of human HL60 cell lysate with PI4K2A antibody. Predicted molecular weight ~54 kDa.



Western blot testing of mouse brain lysate with PI4K2A antibody. Predicted molecular weight ~54 kDa.



Immunofluorescent staining of human HeLa cells with (left) and without (right) PI4K2A antibody (red).



IHC testing of FFPE human cancer tissue with PI4K2A antibody. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.

Description

Phosphatidylinositolpolyphosphates (PtdInsPs) are centrally involved in many biologic processes, ranging from cell growth and organization of the actin cytoskeleton to endo- and exocytosis. PI4KII phosphorylates PtdIns at the D-4 position, an essential step in the biosynthesis of PtdInsPs. PI4K II is activated by detergent and inhibited by adenosine. Overexpression of PI4KII in COS-7 cells increases synthesis of PtdIns4P. Some cells overexpressing PI4KII have scattered or no perinuclear Golgi. Knockdown of PI4KII by RNA interference (RNAi) does not disrupt the Golgi, and some cells show expanded Golgi. RNAi reduces the Golgi level of PtdIns4P and blocks the association between AP1 and the trans-Golgi network. PI4KII RNAi had little effect on intra-Golgi trafficking, but it inhibited export to plasma membrane export by 35%. It has been proposed that PI4KII generates PtdIns4P-rich domains within the Golgi that specify docking of the AP1 coat machinery.

Application Notes

The stated application concentrations are suggested starting points. Titration of the PI4K2A antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 1-30 from the human protein was used as the immunogen for the PI4K2A antibody.

Storage

Aliquot the PI4K2A antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.