Technical Data Sheet

Purified Mouse Anti-PIP5Kγ

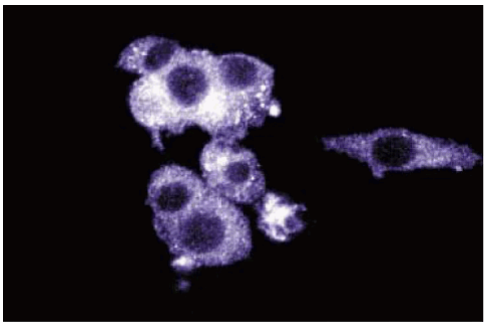
Product Information

Material Number:	**611148**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	12/PIP5Kγ
Immunogen:	Mouse PIP5Kγ aa. 479-580
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse
Target MW:	87-90 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Phosphoinositide turnover is a well established mechanism of intracellular signal transduction. Sequential phosphorylation of phosphatidylinositol (PtdIns) results in PtdIns(4)P (PIP) and PtdIns(4,5)P2 (PIP2). Phospholipase C (PLC) hydrolyzes PIP2 to inositol (1,4,5)P3 (IP3) which stimulates release of intracellular Ca2+. PIP2 is generated by phosphorylation of PtdIns 5-kinases (PI5-K). These enzymes are divided into two types (I and II) based on their size and sensitivity to certain compounds. Three mammalian PI5-Ks, PI5-Kα, β, and γ of type I have been identified and a type II PIP5kα. Although the PI4-Ks are abundantly distributed throughout the cell, activity is found primarily in association with membranous structures. Members of this family contain a lipid kinase unique domain and a C-terminal catalytic domain.

Western blot analysis of PIP5Kγ on a rat cerebrum lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-PIP5Kγ antibody.*



Immunofluorescence staining of PC12 cells (Rat neuroblastoma; ATCC CRL-1721).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

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Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Ishihara H, Shibasaki Y, Kizuki N, et al. Type I phosphatidylinositol-4-phosphate 5-kinases. Cloning of the third isoform and deletion/substitution analysis of members of this novel lipid kinase family. *J Biol Chem.* 1998; 273(15):8741-8748.(Biology)

Nishikawa K, Toker A, Wong K, Marignani PA, Johannes FJ, Cantley LC. Association of protein kinase Cmu with type II phosphatidylinositol 4-kinase and type I phosphatidylinositol-4-phosphate 5-kinase. *J Biol Chem.* 1998; 273(36):23126-23133.(Biology)

Tolias KF, Rameh LE, Ishihara H, et al. Type I phosphatidylinositol-4-phosphate 5-kinases synthesize the novel lipids phosphatidylinositol 3,5-bisphosphate and phosphatidylinositol 5-phosphate. *J Biol Chem.* 1998; 273(29):18040-18046.(Biology)