

Echelon Biosciences Inc.

Tetramethylrhodamine Anti-PI(4,5)P₂ Antibody

Z-R045

Support: echelon@echelon-inc.com

Description:

Tetramethylrhodamine (TMR) conjugated mouse antibody targeting PI(4,5)P₂

Applications:

IF/ICC – 10 ug/mL

Lipid-Protein Overlay – 1.0 ug/mL

ELISA – 2.0 ug/mL

Other in vitro and cellular applications are possible using this antibody, but have not been verified by Echelon Biosciences.

Properties:

Form – liquid

Storage instructions – Protect from direct light and store at 4 °C for up to 30 days. For long term storage, aliquot and store at -20°C. Avoid repeated freeze/thaw cycles.

Storage buffer – PBS, pH 7.4

Concentration – 0.5 or 1.0 ug/mL. See label for lot specific information.

Purity – affinity purified using anti-IgM chromatography

Immunogen – synthetic PI(4,5)P₂ in liposomes

Clonality – monoclonal; clone 2C11

Isotype – IgM

Specificity:

TMR Anti-PI(4,5)P₂ reacts primarily with the head group of the indicated phosphoinositide, and demonstrates low cross-reactivity with other phosphoinositides or phospholipids depending on the assay format.

Background:

Phosphoinositides (PIPns) are minor components of cellular membranes but are integral signaling molecules for cellular communication. Phosphatidylinositol 4,5-bisphosphate (PIP₂) has been shown to play a central role in a variety of cellular functions.

References:

1. Gulshan K, Brubaker G, Conger H, Wang S, Zhang R, Hazen SL, et al. (2016) PI(4,5)P₂ is translocated by ABCA1 to the cell surface where it mediates apolipoprotein A1 binding and nascent HDL assembly. *Circ Res.* 119(7):827–38
2. Patsoukis N, Lafuente EM, Meraner P, Kim J, Dombkowski D, Li L, et al. (2009) RIAM regulates the cytoskeletal distribution and activation of PLC-gamma1 in T cells. *Sci Sig.* 2(99):ra79
3. Heuvingh J, Franco M, Chavrier P, Sykes C. (2007) RF1-mediated actin polymerization produces movement of artificial vesicles. *Proc Natl Acad Sci USA.* 104(43):16928–33
4. Thomas CL, Steele J, Prestwich GD, Schiavo G. Generation of phosphatidylinositol-specific antibodies and their characterization. *Biochemical Society Transactions.* 1999;27:648–51.

Related Products:

Products	Catalog Number
Assays and Reagents	
PI(4,5)P ₂ Mass ELISA	K-4500
PI(4,5)P ₂ PIP Beads	P-B045
PTEN Inhibitor	B-0350s
Lipids and Antibodies	
PI(4,5)P ₂	P-4508, P-4516
Anti-PI(4,5)P ₂	Z-P045
Biotinylated Anti-PI(4,5)P ₂	Z-B045

Technical Data Sheet Rev. 1, 04-17-20 - For research use only. Not intended or approved for diagnostic or therapeutic use.



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