

Fluorescein (FITC) conjugated Anti-PI(3,4,5)P₃ Antibody

Z-G345

Support: echelon@echelon-inc.com

Description:

Fluorescein conjugated mouse monoclonal IgM anti- body against PI(3,4,5)P₃

Applications:

ELISA - 5.0 µg/mL
IF/ICC – 20 µg/mL²
IHC – 10 µg/mL³

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 – see product label

Purity – affinity purified

Immunogen – synthetic PI(3,4,5)P₃

Clonality – monoclonal; clone RC6F8

Specificity:

Z-G345 reacts primarily with the head group of the indicated phosphoinositide and demonstrates low cross-re- activity with other phosphoinositide or phospholipid depending on the assay format.

Background:

Phosphoinositides (PIPns) are minor components of cellular membranes but are integral signaling molecules for cellular communication. Phosphatidylinositol 3,4,5-trisphosphate (PI(3,4,5)P₃), formed from PI(4,5)P₂ though phosphorylation by PI 3-kinase, activates numerous signaling pathways resulting in cell proliferation, growth, survival, glucose

transport and protein synthesis. High PI(3,4,5)P₃ levels from dysregulation of PI3-K have been demonstrated in cancer and inflammatory diseases.

Data: Immunohistochemistry



Control (left) and EGF stimulated (right) MEF cells stained with Z-G345 anti-PIP3 as shown in Gupta et al.

References:

1. Lonetti A, Cappellini A, Sparta AM, Chiarini F, Buontempo F, Evangelisti C, et al. (2015) PI3K pan-inhibition impairs more efficiently proliferation and survival of T-cell acute lymphoblastic leukemia cell lines when compared to isoform-selective PI3K inhibitors. *Oncotarget*. 6(12):10399-414.
2. Ernst MB, Wunderlich CM, Hess S, Paehler M, Mesaros A, Koralov SB, et al. (2009) Enhanced Stat3 Activation in POMC Neurons Provokes Negative Feedback Inhibition of Leptin and Insulin Signaling in Obesity. *J Neurosci*. 29(37):11582-93.
3. Gupta S, Ramjaun AR, Haiko P, Wang Y, Warne PH, Nicke B, et al. (2007) Binding of ras to phosphoinositide 3-kinase p110alpha is required for ras-driven tumorigenesis in mice. *Cell*. 129(5):957-68. *Signal*. 22(3):510-8

Related Products:

Products	Catalog Number
Assays and Enzymes	
PIP3 Mass ELISA	K-2500s
PI3-Kinase Activity ELISA	K-1000s
SHIP2 Enzyme	E-1000
Lipids and Antibodies	
PI(3,4,5)P ₃	P-3908, P-3916
Anti-PI(3,4,5)P ₃	Z-P345b (purified IgG) Z-B345b (biotinylated IgG) Z-P345 (purified IgM)