Recombinant Mouse Pikfyve Protein, Myc/DDK-tagged

Cat. No. Pikfyve-4867M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length phosphoinositide kinase, FYVE type zinc finger containing (Pikfyve), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	Dual specificity kinase implicated in myriad essential cellular processes such as maintenance of endomembrane homeostasis, and endocytic-vacuolar pathway, lysosomal trafficking, nuclear transport, stress- or hormone-induced signaling and cell cycle progression. The PI(3,5)P2 regulatory complex regulates both the synthesis and turnover of phosphatidylinositol 3,5-bisphosphate (PtdIns(3,5)P2). Sole enzyme to catalyze the phosphorylation of phosphatidylinositol 3-phosphate on the fifth hydroxyl of the myo-inositol ring, to form (PtdIns(3,5)P2). Also catalyzes the phosphorylation of phosphatidylinositol on the fifth hydroxyl of the myo-inositol ring, to form phosphatidylinositol 5-phosphate (PtdIns5P). Has serine-protein kinase activity and is able to autophosphorylate and transphosphorylate. Autophosphorylation downregulates lipid product formation Involved in key endosome operations such as fission and fusion in the course of endosomal cargo transport Required for the maturation of early into late endosomes, phagosomes and lysosomes. Regulates vacuole maturation and nutrient recovery following engulfment of macromolecules, initiates the redistribution of accumulated lysosomal contents back into the endosome network Critical regulator of the morphology, degradative activity, and protein turnover

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	of the endolysosomal system in macrophages and platelets. In neutrophils, critical to perform chemotaxis, generate ROS, and undertake phagosome fusion with lysosomes Plays a key role in the processing and presentation of antigens by major histocompatibility complex class II (MHC class II) mediated by CTSS. Regulates melanosome biogenesis by controlling the delivery of proteins from the endosomal compartment to the melanosome Essential for systemic glucose homeostasis, mediates insulin-induced signals for endosome/actin remodeling in the course of GLUT4 translocation/glucose uptake activation. Supports microtubule-based endosome-to-trans-Golgi network cargo transport, trhough association with SPAG9 and RABEPK. Mediates EGFR trafficking to the nucleus
Molecular Mass	232.5 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pikfyve phosphoinositide kinase, FYVE type zinc finger containing [Mus musculus (house mouse)]
Official Symbol	Pikfyve

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Synonyms	PIKFYVE; phosphoinositide kinase, FYVE finger containing; 1-phosphatidylinositol 3-phosphate 5-kinase; PIPkin-III; PtdIns(4)P-5-kinase; type III PIP kinase; phosphatidylinositol 3-phosphate 5-kinase; 1-phosphatidylinositol-3-phosphate 5-kinase; FYVE finger-containing phosphoinositide kinase; phosphatidylinositol 3-phosphate 5-kinase type III; phosphatidylinositol-3-phosphate 5-kinase type III; phosphatidylinositol-4-phosphate 5-kinase, type III; phosphatidylinositol-3-phosphate/phosphatidylinositol 5-kinase, type III; p235; Pip5k; Pip5k3; Pipk5k3; 5230400C17Rik
Gene ID	18711
mRNA Refseq	NM_011086
Protein Refseq	NP_035216
UniProt ID	Q9Z1T6

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA