

## Product datasheet for **TA357775**

### PIP5K1 alpha (PIP5K1A) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	WB
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The immunogen is a synthetic peptide directed towards the middle region of Human PIP5K1A
Specificity:	<b>Expected reactivity:</b> Human
Formulation:	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. <i>Note that this product is shipped as lyophilized powder to China customers.</i>
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	For short term use, store at 2-8°C up to 1 week. For long term storage, store at -20°C in small aliquots to prevent freeze-thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	61kDa
Gene Name:	phosphatidylinositol-4-phosphate 5-kinase type 1 alpha
Database Link:	<a href="#">Entrez Gene 8394 Human Q99755</a>



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**Background:**

PIP5K1A catalyzes the phosphorylation of phosphatidylinositol 4- phosphate (PtdIns4P) to form phosphatidylinositol 4,5-bisphosphate (PtdIns(4,5)P<sub>2</sub>). PtdIns(4,5)P<sub>2</sub> is involved in a variety of cellular processes and is the substrate to form phosphatidylinositol 3,4,5-trisphosphate (PtdIns(3,4,5)P<sub>3</sub>), another second messenger. The majority of PtdIns(4,5)P<sub>2</sub> is thought to occur via type I phosphatidylinositol 4-phosphate 5-kinases given the abundance of PtdIns4P. Participates in a variety of cellular processes such as actin cytoskeleton organization, cell adhesion, migration and phagocytosis. Required for membrane ruffling formation, actin organization and focal adhesion formation during directional cell migration by controlling integrin-induced translocation of RAC1 to the plasma membrane. Together with PIP5K1C is required for phagocytosis, but they regulate different types of actin remodeling at sequential steps. Promotes particle ingestion by activating WAS that induces Arp2/3 dependent actin polymerization at the nascent phagocytic cup. Together with PIP5K1B is required after stimulation of G-protein coupled receptors for stable platelet adhesion. Plays a role during calcium-induced keratinocyte differentiation.

**Synonyms:**

PIP5K1alpha

**Product images:**