

Product datasheet for **TA392692**

PI 3 Kinase regulatory subunit 4 (PIK3R4) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:500~1:1000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding Human PIK3R4.
Specificity:	PIK3R4 polyclonal antibody detects endogenous levels of PIK3R4 protein.
Formulation:	Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2
Concentration:	1mg/ml
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.
Stability:	1 year
Predicted Protein Size:	~ 153 kDa
Gene Name:	phosphoinositide-3-kinase regulatory subunit 4
Database Link:	Entrez Gene 30849 Human Q99570



[View online »](#)

Background:

The serine/threonine PI3 kinase regulatory subunit 4 (PIK3R4, Vps15) is the mammalian homologue of the yeast vacuolar protein sorting 15. PIK3R4 regulates the kinase activity of PI3K class III and anchors the kinase to cellular membranes through myristoylation. Recruitment of PI3K class III to the site of early endosome fusion and docking is directly mediated by PIK3R4 binding to the small GTPase Rab5 through its HEAT and WD-40 domains. The PIK3R4/PI3K class III plays a role in late endosome function through PIK3R4 binding to the Rab7 GTPase. In addition to its role in trafficking, the PIK3R4/PI3K class III complex interacts with beclin-1 to play a role during several stages of autophagy. Autophagosome formation is stimulated when Atg14 complexes with PIK3R4, PI3K class III, and beclin-1. The UVRAG protein competes with Atg14 for beclin-1 binding, forming a mutually exclusive complex with PIK3R4, PI3K class III, and beclin-1 that regulates autophagosome maturation. Autophagosome maturation is impaired in the presence of the beclin-1-binding protein Rubicon. Co-expression of PIK3R4 is required for PI3K class III activation and regulation by both beclin-1/UVRAG and by nutrients. Overexpression of PIK3R4 protein has been associated with decreased survival in patients with ovarian tumors, while mutations of the corresponding PIK3R4 gene are associated with metastatic melanoma, suggesting that PIK3R4 functions in cancer.

Synonyms:

Phosphoinositide 3-kinase adaptor protein; Phosphoinositide 3-kinase regulatory subunit 4; PI3-kinase p150 subunit; PI3-kinase regulatory subunit 4; VPS15

Note:

For research use only, not for use in diagnostic procedure.

Product images: