Data Sheet (Cat.No.TMAH-00979)

TargetMol

Anti-PIK3CB Antibody (8S549)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8S549
Purification:	Affinity-chromatography

Applications

Verified Activity:	1. Western Blot -Positive WB detected in: Hela whole cell lysate, K562 whole cell lysate -All lanes: PIK3CB antibody at 1:1500 -Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution -Predicted band size: 123 kDa -Observed band size: 110 kDa 2. Immunoprecipitating PIK3CB in K562 whole cell lysate -Lane 1: Rabbit control IgG instead of TMAH-00979 in K562 whole cell lysate. For western blotting,a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) -Lane 2: TMAH-00979(2μg)+ K562 whole cell lysate(500μg) -Lane 3: K562 whole cell lysate (10μg)
Application:	ELISA,IP,WB
Recommended	WB:1:500-1:5000; IP:1:200-1:1000.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human PI3 Kinase p110 beta
Antigen Species:	Human
Gene ID:	5291
Uniprot ID:	P42338
Synonyms:	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit beta isoform;PIK3C1; p110beta;PI3Kbeta;PI3-kinase subunit beta;EC 2.7.1.153;PtdIns-3-kinase subunit p110-beta; PtdIns-3-kinase subunit beta;PI3K-beta;Phosphatidylinositol 4,5-bisphosphate 3-kinase 110 kDa catalytic subunit beta
Biology Area:	Cell biology, Immunology, Signal transduction

Research Background

Phosphoinositide-3-kinase (PI3K) phosphorylates phosphatidylinositol derivatives at position 3 of the inositol ring to

produce 3-phosphoinositides. Uses ATP and PtdIns(4,5)P2 (phosphatidylinositol 4,5-bisphosphate) to generate phosphatidylinositol 3,4,5-trisphosphate (PIP3). PIP3 plays a key role by recruiting PH domain-containing proteins to the membrane, including AKT1 and PDPK1, activating signaling cascades involved in cell growth, survival, proliferation, motility and morphology. Involved in the activation of AKT1 upon stimulation by G-protein coupled receptors (GPCRs) ligands such as CXCL12, sphingosine 1-phosphate, and lysophosphatidic acid. May also act downstream receptor tyrosine kinases. Required in different signaling pathways for stable platelet adhesion and aggregation. Plays a role in platelet activation signaling triggered by GPCRs, alpha-IIb/beta-3 integrins (ITGA2B/ ITGB3) and ITAM (immunoreceptor tyrosine-based activation motif)-bearing receptors such as GP6. Regulates the strength of adhesion of ITGA2B/ ITGB3 activated receptors necessary for the cellular transmission of contractile forces. Required for platelet aggregation induced by F2 (thrombin) and thromboxane A2 (TXA2). Has a role in cell survival. May have a role in cell migration. Involved in the early stage of autophagosome formation. Modulates the intracellular level of PtdIns3P (phosphatidylinositol 3-phosphate) and activates PIK3C3 kinase activity. May act as a scaffold, independently of its lipid kinase activity to positively regulate autophagy. May have a role in insulin signaling as scaffolding protein in which the lipid kinase activity is not required. May have a kinase-independent function in regulating cell proliferation and in clathrin-mediated endocytosis. Mediator of oncogenic signal in cell lines lacking PTEN. The lipid kinase activity is necessary for its role in oncogenic transformation. Required for the growth of ERBB2 and RAS driven tumors.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481