abcam

Product datasheet

Anti-PI 3 Kinase p85 beta antibody ab93778

2 Images

Overview

Product name Anti-PI3 Kinase p85 beta antibody

Description Rabbit polyclonal to PI 3 Kinase p85 beta

Host species Rabbit

Tested applications Suitable for: WB, IP

Species reactivity Reacts with: Human

Predicted to work with: Chimpanzee, Rhesus monkey, Gorilla, Orangutan

Immunogen Synthetic peptide from a region within amino acids 75 - 125 of Human PI 3 Kinase p85 beta

(NP_005018.1)

Positive control HeLa whole cell lysate (ab150035)

Properties

Form Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer Preservative: 0.09% Sodium azide

Constituents: 0.1% BSA, Tris buffered saline

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

Our Abpromise guarantee covers the use of ab93778 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		
IP		

Application notes

IP: Use at 5-15µg/mg of lysate.

WB: 1/2000 - 1/10000. Predicted molecular weight: 82 kDa.

Not yet tested in other applications.

Optimal dilutions/concentrations should be determined by the end user.

Target

Function

Regulatory subunit of phosphoinositide-3-kinase (PI3K), a kinase that phosphorylates 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. Binds to activated (phosphorylated) protein-tyrosine kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Indirectly regulates autophagy (PubMed:23604317). Promotes nuclear translocation of XBP1 isoform 2 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in

glucose tolerance improvement.

Involvement in disease

Megalencephaly-polymicrogyria-polydactyly-hydrocephalus syndrome 1

Sequence similarities

Belongs to the PI3K p85 subunit family.

Contains 1 Rho-GAP domain. Contains 2 SH2 domains. Contains 1 SH3 domain.

Domain

The SH2 2 domain is required for interaction with FBXL2 and PTPN13.

Post-translational modifications

Phosphorylated in response to signaling from activated receptor-type protein kinases

 $(PubMed:19690332, PubMed:20068231). \ Dephosphorylated \ by PTPRJ \ (PubMed:18348712).$

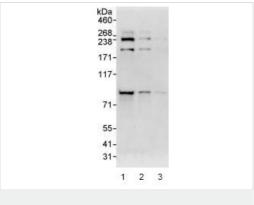
Dephosphorylated at Tyr-655 by PTPN13. Phosphorylation of Tyr-655 impairs while its dephosphorylation promotes interaction with FBXL2 and SCF(FBXL2)-mediated

polyubiquitination (PubMed:23604317).

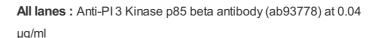
Ubiquitinated. Polyubiquitination by the SCF(FBXL2) complex probably promotes proteasomal

degradation of PIK3R2.

Images



Western blot - Anti-PI 3 Kinase p85 beta antibody (ab93778)



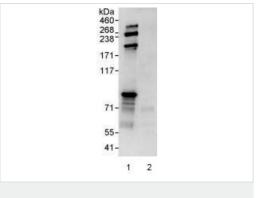
Lane 1: Hela cell lysate at 50 μg **Lane 2**: Hela cell lysate at 15 μg

Lane 3: HeLa cell lysate at 5 µg

Developed using the ECL technique.

Predicted band size: 82 kDa

Exposure time: 30 seconds



Immunoprecipitation - Anti-PI 3 Kinase p85 beta antibody (ab93778)

Immunoprecipitation: 1 mg of HeLa cell lysate

immunoprecipitated with antibody at 10 $\mu g/mg$ lysate; 20% of

immunoprecipitate loaded in each lane

All lanes: PI3 Kinase p85 beta antibody (ab93778) at 1 µg/ml

Lane 1: Lysate immunoprecipitated with ab93778

Lane 2: Lysate immunoprecipitated with a control IgG

Predicted band size: 82 kDa

Developed using the ECL technique

Exposure time: 10 seconds

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