

Product datasheet

Anti-PI 3 Kinase p85 beta antibody ab70956

1 Image

Overview

Product name	Anti-PI 3 Kinase p85 beta antibody
Description	Rabbit polyclonal to PI 3 Kinase p85 beta
Host species	Rabbit
Tested applications	Suitable for: WB, ELISA
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to amino acid residues surrounding Y464 of human PI 3 Kinase p85 beta conjugated to KLH.
Positive control	293 cell lysate transiently transfected with the PI 3 Kinase p85 beta gene.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituent: PBS
Purity	Protein A purified
Purification notes	ab70956 is first purified by protein A affinity chromatography. Then, the antibody fraction is peptide affinity purified in a 2 step procedure with the control and phosphorylated peptides. The non phospho specific antibody is eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab70956** 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		1/50 - 1/100. Detects a band of approximately 82 kDa (predicted molecular weight: 82 kDa).
ELISA		1/1000.

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 PDK1, 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.

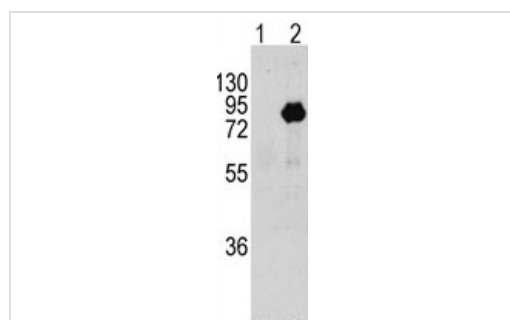
Domain

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 (ab70956)

All lanes : Anti-PI 3 Kinase p85 beta antibody (ab70956) at 1/50 dilution

Lane 1 : 293 cell lysates (nontransfected)

Lane 2 : 293 cell lysates transiently transfected with the PI 3 Kinase p85 beta gene

Lysates/proteins at 2 µg per lane.

Predicted band size: 82 kDa

Observed band size: 82 kDa

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