

Basic Information

Product Name	Anti-PI3 Kinase p110 Alpha/PIK3CA Antibody
Gene Name	PIK3CA
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human
Tested Application	WB, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human PIK3CA recombinant protein (Position: H936-N1068). Human PIK3CA shares 98% amino acid (aa) sequence identity with mouse PIK3CA.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	124 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed):1:50-200

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

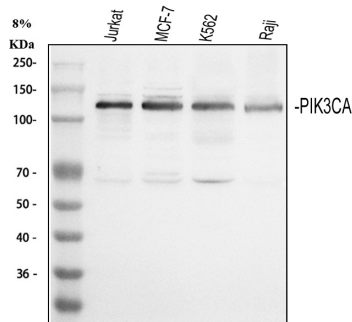
Background Information

Phosphatidylinositol-4,5-bisphosphate 3-kinase, also called PIK3CA, is composed of an 85 kDa regulatory subunit and a 110 kDa catalytic subunit. PIK3CA gene is mapped to 3q26.32. The protein encoded by this gene represents the catalytic subunit, which uses ATP to phosphorylate phosphatidylinositols (PtdIns), PtdIns4P and PtdIns(4,5)P₂. Recent evidence has shown that the PIK3CA gene is mutated in a range of human cancers. It has been found to be oncogenic and has been implicated in cervical cancers. PIK3CA mutations in breast cancer may be a predictive marker to guide the selection of patients who would benefit from mTOR inhibitor therapy. In addition to that, the presence of PIK3CA mutation may predict response to aspirin therapy for colorectal cancer, indicating power and promise of "Molecular Pathological Epidemiology (MPE)" approach as well as a complex interaction within the tumor microenvironment in this phenomenon.

Reference

Anti-PI3 Kinase p110 Alpha/PIK3CA Antibody被引用在15文献中。

Selected Validation Data



Western blot analysis of PI3 Kinase p110 Alpha/PIK3CA using anti-PI3 Kinase p110 Alpha/PIK3CA antibody (PB0351). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Jurkat whole cell lysates,

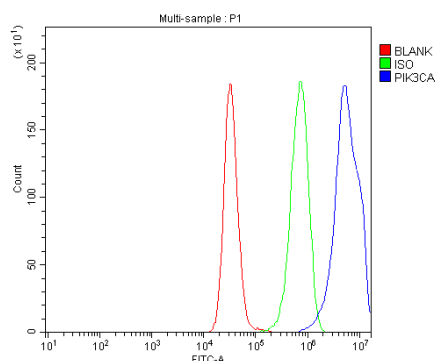
Lane 2: human MCF-7 whole cell lysates,

Lane 3: human K562 whole cell lysates,

Lane 4: human Raji whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-PI3 Kinase p110 Alpha/PIK3CA antigen affinity purified polyclonal antibody (PB0351) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for PI3 Kinase p110 Alpha/PIK3CA at approximately 124 kDa. The expected band size for PI3 Kinase p110 Alpha/PIK3CA is at 124 kDa.



Flow Cytometry analysis of Raji cells using anti-PI3 Kinase p110 Alpha/PIK3CA antibody (PB0351).

Overlay histogram showing Raji cells stained with PB0351 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-PI3 Kinase p110 Alpha/PIK3CA Antibody (PB0351) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.