

Basic Information

Product Name	Anti-PI3 Kinase p110 Alpha/PIK3CA Antibody (Clone#OTI7A7)
Gene Name	PIK3CA
Source	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Species Reactivity	human, mouse, rat
Tested Application	IHC
Contents	PBS (PH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Immunogen	Human recombinant protein fragment corresponding to amino acids 303-631 of human PIK3CA (NP_006209) produced in E.coli.
Concentration	500 ug/ml
Purification	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Observed MW	124.1KD
Dilution Ratios	Immunohistochemistry (IHC):1:150

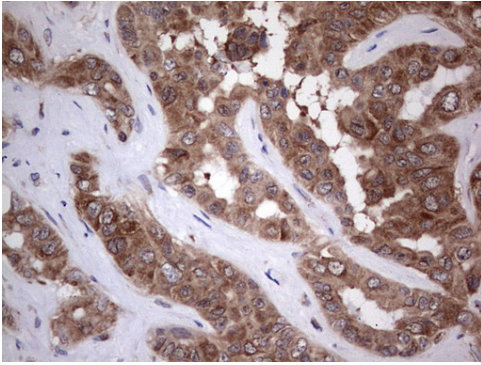
Storage

Stable for 12 months from date of receipt. Store at -20°C as received.

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.

Selected Validation Data



Immunohistochemical staining of paraffin-embedded Carcinoma of Human liver tissue using anti-PIK3CA mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120°C for 3min, M00029-2)