

PIK3CA H1047R (ABT453) Mouse mAb

CatalogNo: YM4854

Key Features

Host Species

- Mouse

Reactivity

- Human,

Applications

- IHC, WB, IF, ELISA

MW

- 124kD (Calculated)
124kD (Observed)

Isotype

- IgG2b, Kappa

Recommended Dilution Ratios

IHC 1:200-1000

WB 1:500-2000

IF 1:100-500

ELISA 1:1000-5000

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

Basic Information

Clonality Monoclonal

Clone Number ABT453

Immunogen Information

Immunogen Synthesized peptide derived from human PIK3CA H1047R AA range: 1000-1068

Specificity The antibody can specifically recognize the h1047r mutation of human PIK3CA protein, and does not react with wild-type PIK3CA protein.

| Target Information

Gene name	PIK3CA
Protein Name	5-bisphosphate 3-kinase 110 kDa catalytic subunit alpha;5-bisphosphate 3-kinase catalytic subunit alpha isoform;caPI3K;CLOVE;CWS5;MCAP;MCM;MCMTTC;MGC142161;MGC142163;p110 alpha;p110alpha;Phosphatidylinositol 3 kinase catalytic alpha polypeptide;Phosphatidylinositol 3 kinase catalytic 110 KD alpha;Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit alpha;Phosphatidylinositol 4 5 bisphosphate 3 kinase catalytic subunit alpha isoform;Phosphatidylinositol 4,5 bisphosphate 3 kinase 110 kDa catalytic subunit alpha;Phosphatidylinositol-4;Phosphoinositide 3 kinase catalytic alpha polypeptide;PI 3 Kinase catalytic subunit alpha;PI3 kinase p110 subunit alpha;PI3-kinase subunit alpha;PI3K;PI3K-alpha;PI3KC A;PIK3C A;Pik3ca;PK3CA;PK3CA_HUMAN;PtdIns 3 kinase p110;PtdIns-3-kinase subunit alpha;PtdIns-3-kinase subunit p110-alpha;Serine/threonine protein kinase PIK3CA

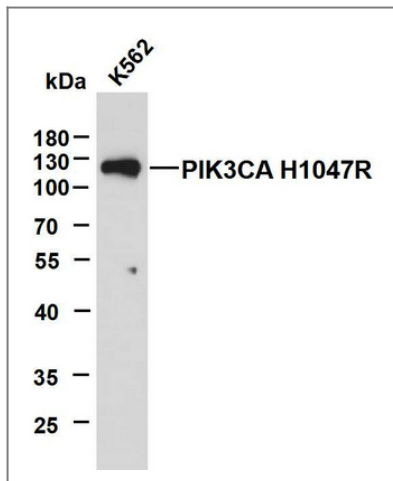
Organism	Gene ID	UniProt ID
Human	5290 ;	P42336 ;
Mouse		P42337 ;

Cellular Localization Cytoplasmic

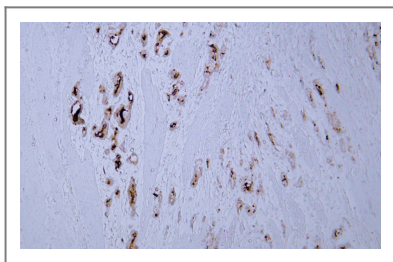
Tissue specificity Gastric adenocarcinoma with PIK3CA H1047R protein expression

Function Catalytic activity:ATP + 1-phosphatidyl-1D-myo-inositol 4,5-bisphosphate = ADP + 1-phosphatidyl-1D-myo-inositol 3,4,5-trisphosphate.,Disease:Defects in PIK3CA are associated with breast cancer [MIM:114480].,Disease:Defects in PIK3CA are associated with colorectal cancer (CRC) [MIM:114500].,Disease:Defects in PIK3CA are associated with ovarian cancer [MIM:167000]. Ovarian cancer is the leading cause of death from gynecologic malignancy. It is characterized by advanced presentation with loco-regional dissemination in the peritoneal cavity and the rare incidence of visceral metastases. These typical features relate to the biology of the disease, which is a principal determinant of outcome.,Disease:Defects in PIK3CA may underlie hepatocellular carcinoma (HCC) [MIM:114550].,Disease:PI3KCA mutations affecting exons 9 and 20 display gender-and tissue-specific patterns, thus suggesting that the different amino acid changes could exert distinct functional effects on the oncogenic properties of this enzyme. Furthermore, sexual dimorphisms and tissue specific factors might directly or indirectly influence the occurrence of PI3KCA cancer alleles.,Function:Phosphorylates PtdIns, PtdIns4P and PtdIns(4,5)P2 with a preference for PtdIns(4,5)P2.,similarity:Belongs to the PI3/PI4-kinase family.,similarity:Contains 1 C2 domain.,similarity:Contains 1 PI3K/PI4K domain.,subunit:Heterodimer of a p110 (catalytic) and a p85 (regulatory) subunit. Binds to IRS1 in nuclear extracts. Interacts with RUFY3.,

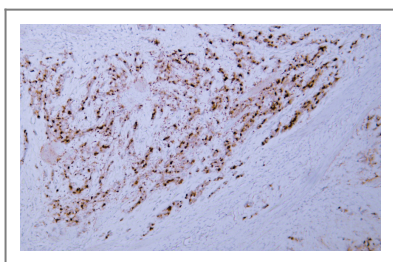
| Validation Data



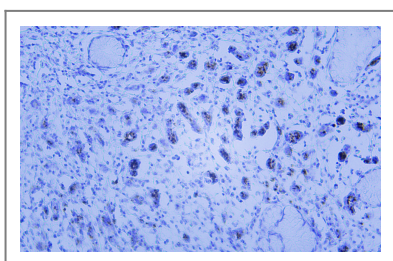
K562 whole cell lysates were separated by 10% SDS-PAGE, and the membrane was blotted with anti-PIK3CA H1047R(ABT453) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: K562



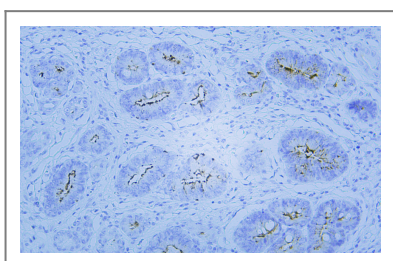
Human gastric adenocarcinoma tissue was stained with Anti-PIK3CA H1047R (ABT453) Antibody



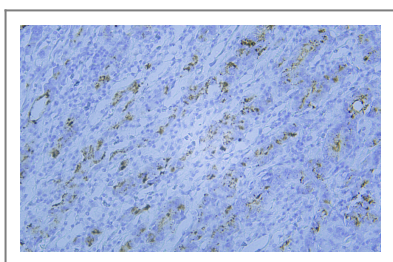
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Human gastric adenocarcinoma tissue was stained with Anti-PIK3CA H1047R (ABT453) Antibody

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(ABT453) Mouse
mAb**

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