

## **PIK3CBPolyclonal Antibody**

Catalog Number: E90982

Amount: 100ul

Background: Phosphoinositide 3-kinase (PI3K) catalyzes the production o

phosphatidylinositol-3,4,5-triphosphate by phosphorylating phosphatidylinositol (PI), phosphatidylinositol-4-phosphate (PIP) and phosphatidylinositol-4,5-bisphosphate (PIP2). Growth factors and hormones trigger this phosphorylation event, which in turn coordinates cell growth, cell cycle entry, cell migration, and cell survival (1). PTEN reverses this process, and the PI3K signaling pathway is constitutively activated in human cancers that have loss of function of PTEN (2). PI3Ks are composed of a catalytic subunit (p110) and a regulatory subunit. Various isoforms of the catalytic subunit (p110 $\alpha$ , p110 $\beta$ , p110 $\gamma$ , and p110 $\delta$ ) have been isolated, and the regulatory subunits that associate with p110 $\alpha$ , p110 $\beta$ , and p110 $\delta$  are p85 $\alpha$  and p85 $\beta$  (3). In contrast, p110 $\gamma$  associates with a p101 regulatory subunit that is unrelated to p85. Furthermore, p110 $\gamma$  is activated by  $\beta\gamma$  subunits of heterotrimeric G proteins (4). p110 $\beta$  is widely distributed in tissue and plays an essential role in early embryonic development (5). p110 $\beta$  stimulates cell proliferation, invasive cell growth, and expression is increased in a number of tumors including glioblastomas (6-8).

**Species:** Rabbit **Isotype:** IgG

Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide,

50% glycerol, pH7.3.

Synonyms: PIK3CB;DKFZp779K1237;MGC133043;PI3K;PI3KCB;PI3Kbeta;PIK3C1;p110-BETA;

Immunogen: Recombinant proteinof human PIK3CB

Purification: Affinity purification

Reactivity: H M R
Applications: WB IHC
Molecular Weight: 123kDa
Swiss-Prot No.: P42338
Gene ID: 5291

References: 1. Cantley, L.C. (2002) Science 296, 1655-7. 2. Simpson, L. and Parsons, R. (2001) Exp.

Cell Res 264, 29-41. 3. Neri, L.M. et al. (2002) Biochim Biophys Acta 1584, 73-80. 4. Stoyanov, B. et al. (1995) Science 269, 690-3. 5. Okkenhaug, K. and Vanhaesebroeck, B. (2003) Nat Rev Immunol 3, 317-30. 6. Czauderna, F. et al. (2003) Nucleic Acids Res 31, 670-82. 7. Bénistant, C. et al. (2000) Oncogene 19, 5083-90. 8. Knobbe, C.B. and

Reifenberger, G. (2003) Brain Pathol 13, 507-18.

