bs-5570R **[Primary Antibody]**

phospho-PI3KCA (Tyr317) Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 5290 **SWISS:** P42336

Target: PI3KCA (Tyr317)

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human PI3KCA around the phosphorylation site of Tyr317: TP(p-Y)MN.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: PI3-Kinases (PI3-Ks) are a family of lipid kinases that are implicated in signal transduction. Phosphatidylinositol 3-kinase is composed of an 85 kDa regulatory subunit and a 110 kDa catalytic subunit. The p85 subunit localize PI3-K activity to the plasma membrane while the p110 subunit contains the catalytic domain of PI3-K which uses ATP to phosphorylate PtdIns, PtdIns4P and PtdInsP2. Four isoforms of p110 has been found; alpha, beta, gamma, and the delta subunit. The alpha isoform, also known as PI3KCA, is a transforming oncogene that was shown to have activating mutations in nine types of cancers such as colon, brain, breast and stomach.

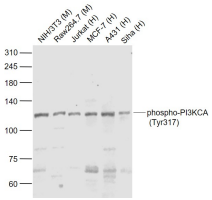
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)

Reactivity: Human, Mouse (predicted: Rat)

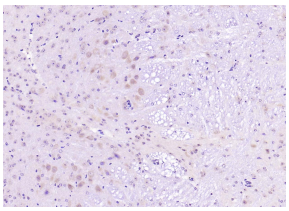
Predicted MW.: 124 kDa

Subcellular Location: Cytoplasm

VALIDATION IMAGES



Sample: Lane 1: NIH/3T3 (Mouse) Cell Lysate at 30 ug Lane 2: Raw264.7 (Mouse) Cell Lysate at 30 ug Lane 3: Jurkat (Human) Cell Lysate at 30 ug Lane 4: MCF-7 (Human) Cell Lysate at 30 ug Lane 5: A431 (Human) Cell Lysate at 30 ug Lane 6: Siha (Human) Cell Lysate at 30 ug Primary: Anti-phospho-PI3KCA (Tyr317) (bs-5570R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 110/120 kD Observed band size: 110 kD



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-PI3KCA (Tyr317)) Polyclonal Antibody, Unconjugated (bs-5570R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

SELECTED CITATIONS

- **[IF=19]** Sheng Cheng. et al. Multifunctional Apoptotic Bodies Engineered by Magnesium Oxide Nanoparticles for Synergistic Ischemic Skin Flap Therapy. ADV FUNCT MATER. 2025 May;:2503425 WB ;Mouse. 10.1002/adfm.202503425
- **[IF=13.3]** Zhihe Yun. et al. Neural-enhancing PRP/Alg/GelMA triple-network hydrogel for neurogenesis and angiogenesis after spinal cord injury via PI3K/AKT/mTOR signaling pathway. THERANOSTICS. 2025 Mar;15(9):3837 WB ;Rat. 40213674
- **[IF=11.161]** Chi, Ming. et al. TEAD4 functions as a prognostic biomarker and triggers EMT via PI3K/AKT pathway in

bladder cancer. J EXP CLIN CANC RES. 2022 Dec;41(1):1-20 WB ;Human. 35581606

- **[IF=10.2]** Biao Zhang. et al. Okra juice used for rapid wound healing through its bioadhesive and antioxidant capabilities. MATER TODAY BIO. 2025 Apr;31:101495 WB ;Mouse. 39896277
- **[IF=8.7]** Xue Sun. et al. An injectable shape-adaptive hydrogel system for subconjunctival injuries: In situ and permanently releases rapamycin to prevent fibrosis via promoting autophagy. MATER TODAY BIO. 2025 Feb;30:101380 IF,WB ;Human. 39790484