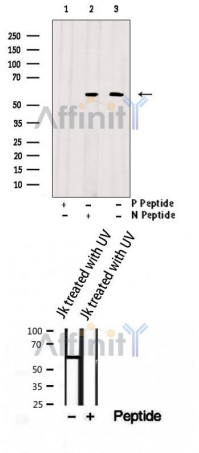
Phospho-AKT1/2/3(Tyr315/316/312) Ab

Cat.#: AF1022	Concn.: 1mg/ml	Mol.Wt.: 56kDa,60kDa,55kDa
Size: 100ul,200ul	Source: Rabbit	Clonality: Polyclonal

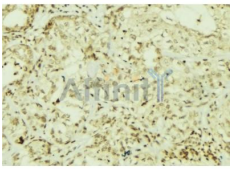
Application:	WB 1:500-1:2000 IHC 1:50-1:200 IF 1:100-1:500
Reactivity:	Human,Mouse,Rat
Purification:	The Ab is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Specificity:	Phospho-AKT1/2/3(Tyr315/316/312) Ab detects endogenous levels of AKT1/2/3.
Immunogen:	A synthesized peptide derived from human AKT1/2/3 around the phosphorylation site of Tyr315/316/312.
Uniprot:	P31749/P31751/Q9Y243
Subcellular Location:	Cytoplasm. Nucleus. Cell membrane. Nucleus after activation by integrin-linked protein kinase 1 (ILK1). Nuclear translocation is enhanced by interaction with TCL1A. Phosphorylation on Tyr-176 by TNK2 results in its localization to the cell membrane where it is targeted for further phosphorylations on Thr-308 and Ser-473 leading to its activation and the activated form translocates to the nucleus.
Tissue Specificity:	Expressed in prostate cancer and levels increase from the normal to the malignant state (at protein level). Expressed in all human cell types so far analyzed. The Tyr-176 phosphorylated form shows a significant increase in expression in breast cancers during the progressive stages i.e. normal to hyperplasia (ADH), ductal carcinoma in situ (DCIS), invasive ductal carcinoma (IDC) and lymph node metastatic (LNMM) stages.
Similarity:	Binding of the PH domain to phosphatidylinositol 3,4,5-trisphosphate (PI(3,4,5)P3) following phosphatidylinositol 3-kinase alpha (PIK3CA) activity results in its targeting to the plasma membrane. The PH domain mediates interaction with TNK2 and Tyr-176 is also essential for this interaction.The AGC-kinase C-terminal mediates interaction with THEM4.Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. RAC subfamily.
Storage Condition and	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM

Buffer: NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt.



Western blot analysis of extracts from JK treated with UV, using Phospho-AKT1/2/3(Tyr315/316/312) Ab. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

Western blot analysis of extracts from JK treated with UV, using Phospho-AKT1/2/3(Tyr315/316/312) Ab.



AF1022 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the Ab for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit Ab was used as the secondary.

AF1022 staining HepG2 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary Ab was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary Ab.

IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.