AKT (pan) (Phospho Ser473) Rabbit mAb (AR1249)

Key Features

Host Species:	Rabbit
Reactivity:	Human,Mouse,Rat
Applications:	WB,IHC,IF,IP,ELISA
Isotype:	IgG,Kappa
MW:	56kD (Calculated) 60kD (Observed)

Recommended Dilution Ratios

IHC:	1:200-500
WB:	1:1000-5000
IF:	1:200-1000
ELISA:	1:5000-20000
IP:	1:50-200

Storage

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

Basic Information

Clonality	Monoclonal

Immunogen Information

Specificity	Endogenous

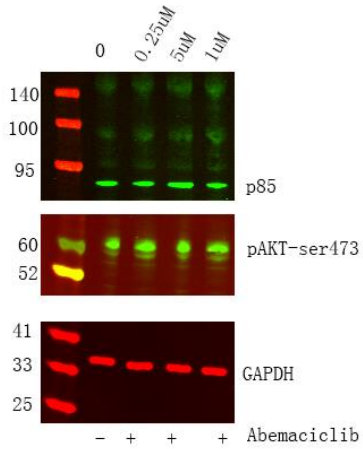
Target Information

Gene name	AKT1/AKT2/AKT3
Protein Name	RAC-alpha serine/ threonine-protein kinase; RAC-beta serine/ threonine-protein kinase; RAC gamma serine/ threonine-protein kinase

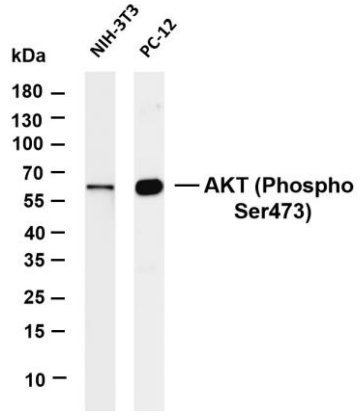
Organism	Gene ID	UniProt ID
Human	207; 208; 10000	P31749; P31751; Q9Y243
Mouse	11651; 11652; 23797	P31750
Rat	24185; 25233; 29414	P47196; P47197; Q63484

Cellular Localization	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. Colocalizes with WDFY2 in intracellular vesicles (PubMed:16792529).
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.

Validation Data



Western Blot analysis using HepG2 whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-PI3-Kinase p85 α rabbit mAb diluted at 1:2000. anti-AKT (Phospho Ser473) Rabbit mAb diluted at 1:2000. Loading control: Mouse anti GAPDH Secondary: Dylight 800, Goat Anti Rabbit IgG Dylight 680, Goat Anti Rabbit IgG



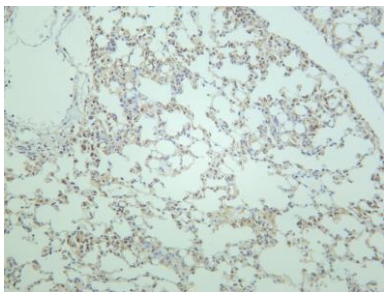
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-AKT (Phospho Ser473) antibody. The HRP conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody.

Lane 1: NIH-3T3

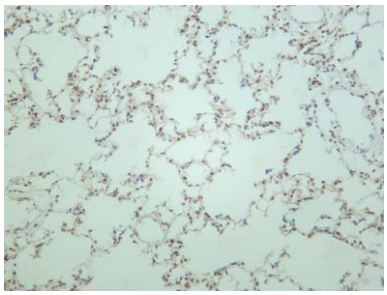
Lane 2: PC-12

Predicted band size: 56kDa

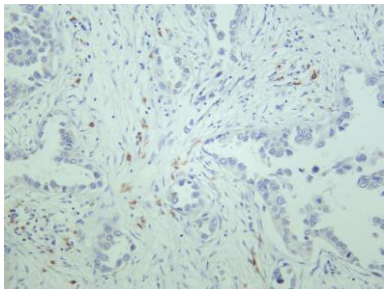
Observed band size: 60kDa



Mouse lung was stained with anti-AKT (Phospho Ser473) rabbit antibody



Rat lung was stained with anti-AKT (Phospho Ser473) rabbit antibody



Human lung carcinoma was stained with anti-AKT (Phospho Ser473) rabbit antibody

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