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# Pan-Akt Rabbit mAb

**Catalog No.: A18675** Recombinant 14 Publications

## Basic Information

**Observed MW**
60kDa

**Calculated MW**

**Category**
Primary antibody

**Applications**
ELISA,WB,IHC-P,IF/ICC,IP

**Cross-Reactivity**
Human, Mouse, Rat

**CloneNo number**
ARC5005-05

## Background

Human AKT serine-threonine protein kinase family includes three members AKT1,AKT2, AKT3, which are also often referred to as protein kinase B alpha, beta, and gamma. These highly similar AKT proteins all have an N-terminal pleckstrin homology domain, a serine/threonine-specific kinase domain and a C-terminal regulatory domain. These proteins are phosphorylated by phosphoinositide 3-kinase (PI3K). AKT/PI3K forms a key component of many signalling pathways that involve the binding of membrane-bound ligands such as receptor tyrosine kinases, G-protein coupled receptors, and integrin-linked kinase. These AKT proteins therefore regulate a wide variety of cellular functions including cell proliferation, survival, metabolism, and angiogenesis in both normal and malignant cells. AKT proteins are recruited to the cell membrane by phosphatidylinositol 3,4,5-trisphosphate (PIP3) after phosphorylation of phosphatidylinositol 4,5-bisphosphate (PIP2) by PI3K. Subsequent phosphorylation of both threonine residue 308 and serine residue 473 is required for full activation of the AKT1 protein encoded by this gene.

## Recommended Dilutions

| | |
|---|---|
| **WB** | 1:1000 - 1:5000 |
| **IHC-P** | 1:50 - 1:200 |
| **IF/ICC** | 1:50 - 1:200 |
| **IP** | 0.5μg-4μg antibody for 200μg-400μg extracts of whole cells |

## Immunogen Information

**Gene ID**
207/ 208/ 10000

**Swiss Prot**
P31749/P31751/Q9Y243

**Immunogen**
Recombinant fusion protein containing a sequence corresponding to amino acids 1-123 of human Pan-Akt (NP_005154.2).

**Synonyms**

## Contact


400-999-6126

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## Product Information

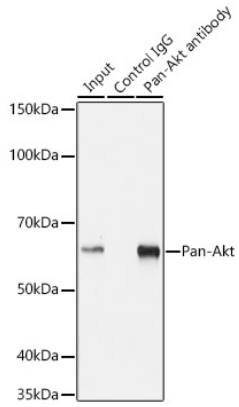
**Source**
Rabbit

**Isotype**
IgG

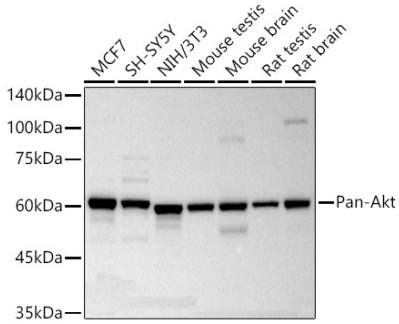
**Purification**
Affinity purification

**Storage**
Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.01% thimerosal,0.05% BSA,50% glycerol,pH7.3.

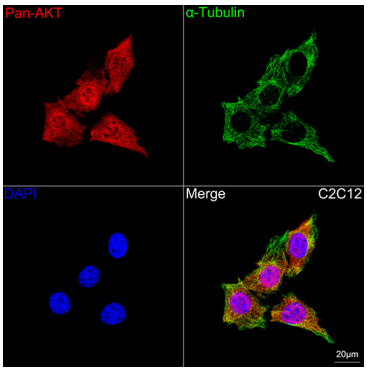
## Validation Data



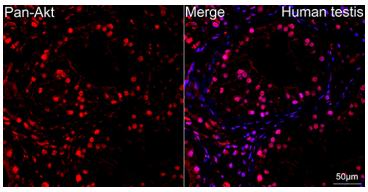

Immunoprecipitation analysis of 200 µg extracts from MCF7 cells using 3 µg Pan-Akt Rabbit mAb (A18675). Western blot was performed from the immunoprecipitate using Pan-Akt Rabbit mAb (A18675) at a dilution of 1:1000.



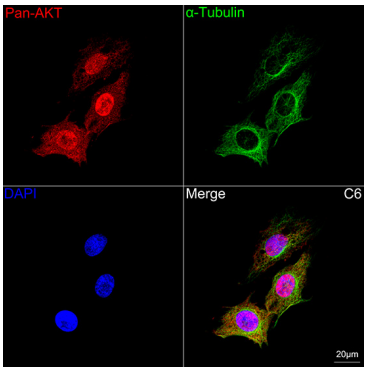

Western blot analysis of various lysates using Pan-Akt Rabbit mAb (A18675) at1:2000 dilution.
Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (AS014) at1:10000 dilution.
Lysates/proteins: 25µg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 10s.




Confocal immunofluorescence analysis of C2C12 cells using Pan-Akt Rabbit mAb (A18675, dilution 1:100) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with Alpha-tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

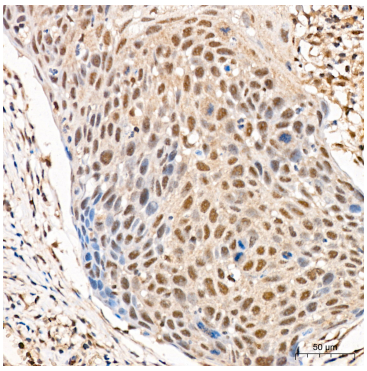



Confocal imaging of paraffin-embedded Human testis tissue using Pan-Akt Rabbit mAb (A18675, dilution 1:100) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). High pressure antigen retrieval performed with 0.01M Citrate Buffer(pH 6.0) prior to IF staining. Objective: 40x.

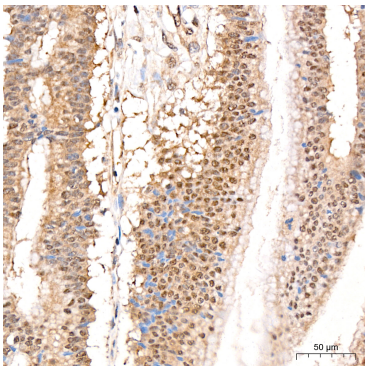



Confocal immunofluorescence analysis of C6 cells using Pan-Akt Rabbit mAb (A18675, dilution 1:100) followed by a further incubation with Cy3 Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). The cells were counterstained with Alpha-tubulin Mouse mAb (AC012, dilution 1:400) followed by incubation with ABflo® 488-conjugated Goat Anti-Mouse IgG (H+L) Ab (AS076, dilution 1:500) (Green). DAPI was used for nuclear staining (Blue). Objective: 100x.

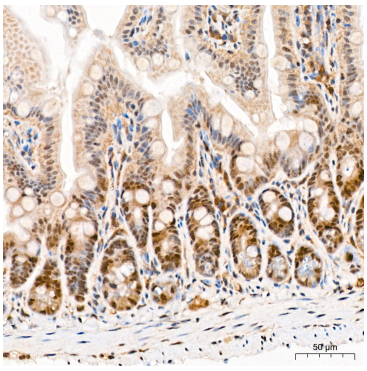
## Validation Data



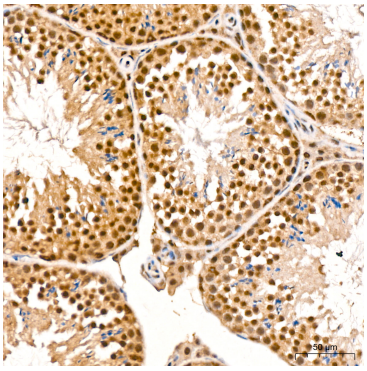
Immunohistochemistry analysis of Pan-Akt in paraffin-embedded human cervix cancer tissue using Pan-Akt Rabbit mAb (A18675) at a dilution of 1:200 (40x lens).High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



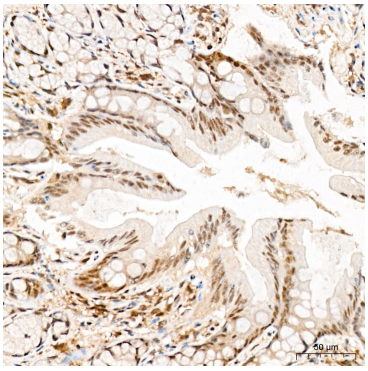
Immunohistochemistry analysis of Pan-Akt in paraffin-embedded human colon carcinoma tissue using Pan-Akt Rabbit mAb (A18675) at a dilution of 1:200 (40x lens).High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of Pan-Akt in paraffin-embedded mouse intestin tissue using Pan-Akt Rabbit mAb (A18675) at a dilution of 1:200 (40x lens).High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of Pan-Akt in paraffin-embedded mouse testis tissue using Pan-Akt Rabbit mAb (A18675) at a dilution of 1:200 (40x lens).High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.



Immunohistochemistry analysis of Pan-Akt in paraffin-embedded rat colon tissue using Pan-Akt Rabbit mAb (A18675) at a dilution of 1:200 (40x lens).High pressure antigen retrieval was performed with 0.01 M citrate buffer (pH 6.0) prior to IHC staining.