

## Product datasheet for **TA373418S**

### AKT1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, ICC/IF, IHC, IP, WB
Recommended Dilution:	WB, 1:500 - 1:1000 IHC-P, 1:50 - 1:200 IF/ICC, 1:50 - 1:100 IP, 0.5µg-4µg antibody for 400µg-600µg extracts of whole cells ELISA, Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.
Reactivity:	Human, Mouse, Rat
Modifications:	Unmodified
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Formulation:	PBS with 0.05% proclin300, 50% glycerol, pH7.3.
Concentration:	lot specific
Purification:	Affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C. Avoid freeze / thaw cycles.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	48kDa/55kDa/51kDa/54kDa
Gene Name:	AKT serine/threonine kinase 1
Database Link:	<a href="#">Entrez Gene 207 Human P31749</a>



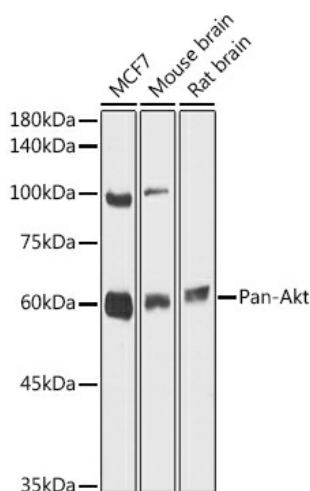
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**Background:**

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.

**Synonyms:**

AKT; C-AKT; MGC99656; PKB; PKB-ALPHA; PRKBA; RAC; RAC-ALPHA; RAC-PK-alpha

**Product images:**


Western blot analysis of various lysates using Pan-Akt Rabbit pAb (TA373418) at 1:1000 dilution.

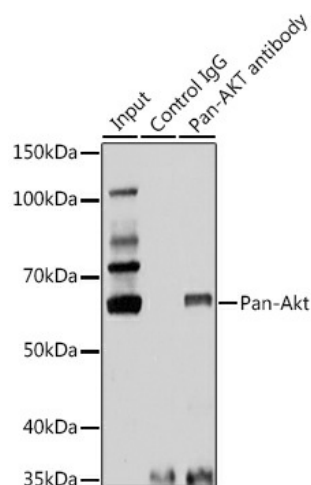
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.

Lysates/proteins: 25µg per lane.

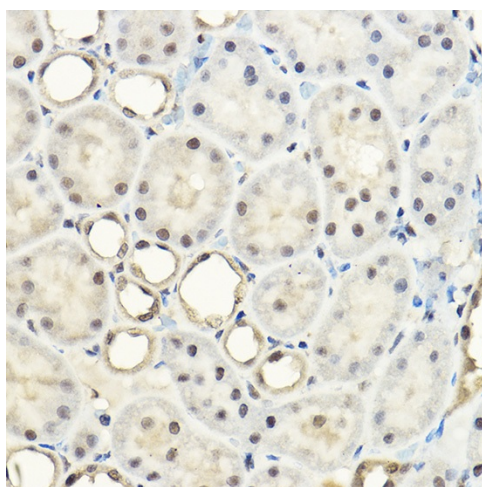
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

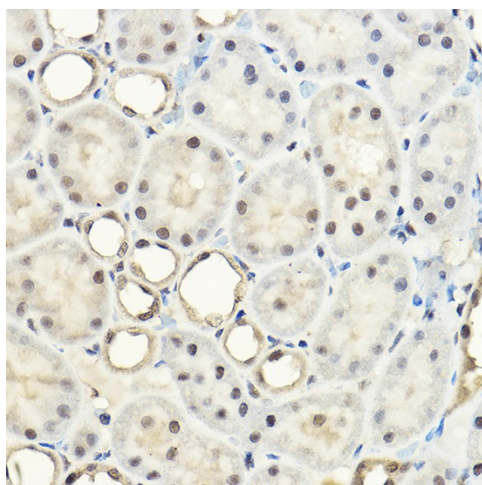
Exposure time: 30s.



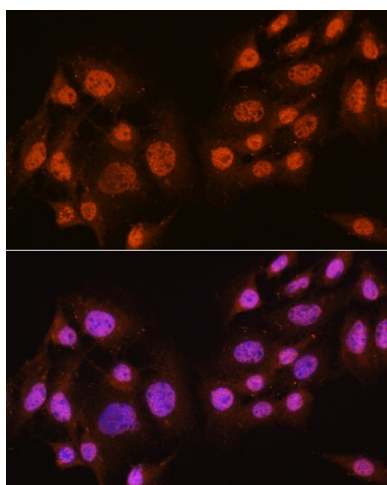
Immunoprecipitation analysis of 25 µg extracts of Rat brain cells using 3 µg Pan-Akt antibody ([TA373418]). Western blot was performed from the immunoprecipitate using Pan-Akt antibody ([TA373418]) at a dilution of 1:1000.



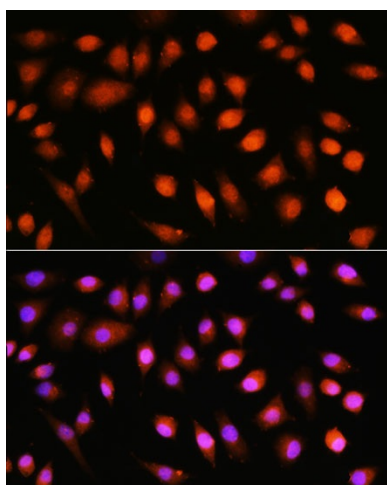
Immunohistochemistry analysis of paraffin-embedded Rat ovary using Pan-Akt Rabbit pAb ([TA373418]) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



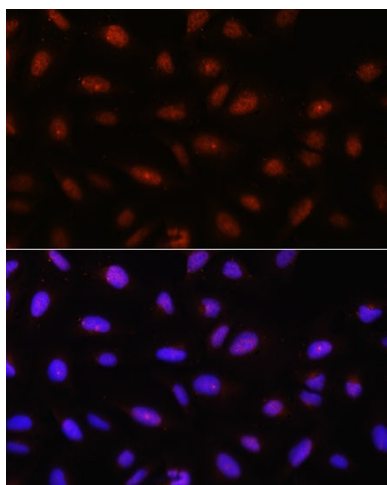
Immunohistochemistry analysis of paraffin-embedded Rat kidney using Pan-Akt Rabbit pAb ([TA373418]) at dilution of 1:100 (40x lens). High pressure antigen retrieval performed with 0.01M Citrate Bufferr (pH 6.0) prior to IHC staining.



Immunofluorescence analysis of C6 cells using Pan-Akt Rabbit pAb ([TA373418]) at dilution of 1:100. Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of L929 cells using Pan-Akt Rabbit pAb ([TA373418]) at dilution of 1:100. Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.



Immunofluorescence analysis of U-2 OS cells using Pan-Akt Rabbit pAb ([TA373418]) at dilution of 1:100. Secondary antibody: Cy3-conjugated Goat anti-Rabbit IgG (H+L) (AS007) at 1:500 dilution. Blue: DAPI for nuclear staining.