

#21502

AKT1 (Ab-450) Antibody

Catalog: #21502-1 50µl **Orders:** order@signalwayantibody.com
#21502-2 100µl **Support:** tech@signalwayantibody.com
Storage: Store at -20°C/1 year **Web:** www.signalwayantibody.com



Application	Species Reactivity	Source	Molecular Wt.
WB IHC IF	Human Mouse Rat	Rabbit Polyclonal Ab	60KD

Description: Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.

Specificity: The antibody detects endogenous level of total AKT1 protein.

Immunogen: Peptide sequence around aa.448~452 (T-I-T-P-P) derived from Human AKT1.

Formulation: Supplied at 1.0mg/mL in phosphate buffered saline (without Mg²⁺ and Ca²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Synonyms: RAC-PK-alpha
Protein kinase B

Accession No.: Swiss-Prot#: P31749 NCBI Gene#: 207
NCBI Protein#: NP_001014431.1

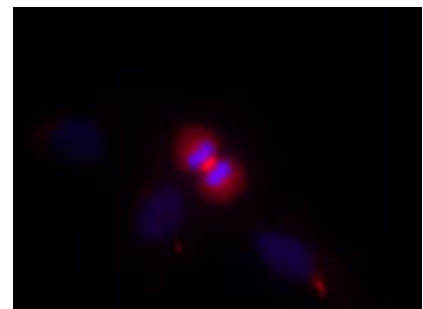
Background: General protein kinase capable of phosphorylating several known proteins. Phosphorylates TBC1D4. Signals downstream of phosphatidylinositol 3-kinase (PI3K) to mediate the effects of various growth factors such as platelet-derived growth factor (PDGF), epidermal growth factor (EGF), insulin and insulin-like growth factor I (IGF-I). Plays a role in glucose transport by mediating insulin-induced translocation of the GLUT4 glucose transporter to the cell surface. Mediates the antiapoptotic effects of IGF-I. Mediates insulin-stimulated protein synthesis by phosphorylating TSC2 at 'Ser-939' and 'Thr-1462', thereby activating mTORC1 signaling and leading to both phosphorylation of 4E-BP1 and in activation of RPS6KB1. Promotes glycogen synthesis by mediating the insulin-induced activation of glycogen synthase.

References:

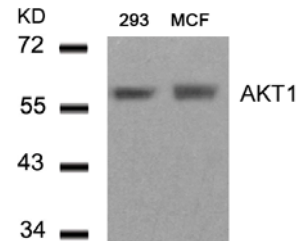
- Xing J, et al. (1998) Mol Cell Biol 18(4): 1946-55.
Tan Y, et al. (1996) EMBO J; 15(17): 4629-42.
Hao, M. et al. (1996) J. Biol. Chem. 271, 29380-29385.
Mayo LD, et al. (2001) Biol Chem; 276(27): 25184-9.
Lu, H. et al. (1997) Mol. Cell. Biol. 17, 5923-5934.

Recommended Dilutions:

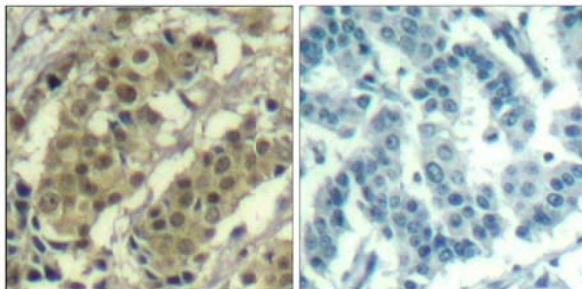
Immunohistochemistry 1:500~1:1000
Immunofluorescence 1:50~1:100
1:100~1:200



Immunofluorescence staining of methanol-fixed HeLa cells using AKT1 (Ab-450) Antibody #21502.



Western blot analysis of extracts from 293 and MCF cells using AKT1 (Ab-450) Antibody #21502.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1 (Ab-450) Antibody #21502 (left) or the same antibody preincubated with blocking peptide (right).

Citation:

If you publish research using #21502 please [let us know](#).

Related Pathway: Akt, Insulin/Glucose, Jak/Stat, Cytoskeletal/Adhesion, Wnt/beta-catenin

Note: For western blotting, incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

This product is for in vitro research use only and is not intended for use in humans or animals.