

## AKT1(Ab-450) Antibody

Catalog No: #21502

Package Size: #21502-1 50ul #21502-2 100ul

## Description

|                       |                                                                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name          | AKT1(Ab-450) Antibody                                                                                                                                                         |
| Host Species          | Rabbit                                                                                                                                                                        |
| Clonality             | Polyclonal                                                                                                                                                                    |
| Purification          | Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide. |
| Applications          | WB IHC IF                                                                                                                                                                     |
| Species Reactivity    | Hu Ms Rt                                                                                                                                                                      |
| Specificity           | The antibody detects endogenous level of total AKT1 protein.                                                                                                                  |
| Immunogen Type        | Peptide-KLH                                                                                                                                                                   |
| Immunogen Description | Peptide sequence around aa.448~452 (T-I-T-P-P) derived from Human AKT1.                                                                                                       |
| Conjugates            | Unconjugated                                                                                                                                                                  |
| Target Name           | AKT1                                                                                                                                                                          |
| Other Names           | RAC-PK-alpha; Protein kinase B;                                                                                                                                               |
| Accession No.         | Swiss-Prot: P31749 NCBI Protein: NP_001014431.1                                                                                                                               |
| Concentration         | 1.0mg/ml                                                                                                                                                                      |
| Formulation           | Supplied at 1.0mg/mL in phosphate buffered saline (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                  |
| Storage               | Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.                                                                                     |

## Application Details

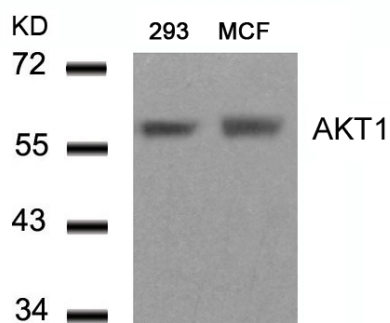
Predicted MW: 60kd

Western blotting: 1:500~1:1000

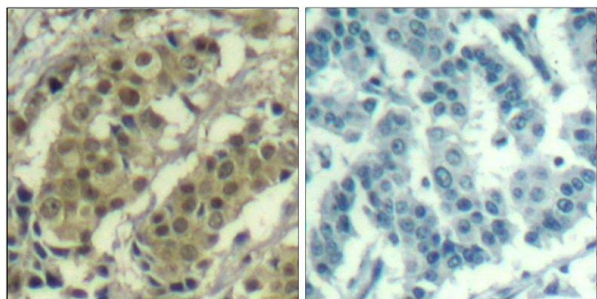
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

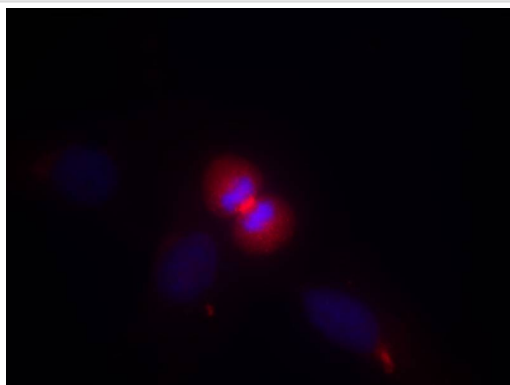
## Images



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).



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

## 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.

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.

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