

#21055

## Akt (Ab-308) Antibody

**Catalog:** #21055-1 50µl **Orders:** [order@signalwayantibody.com](mailto:order@signalwayantibody.com)  
#21055-2 100µl **Support:** [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)  
**Storage:** Store at -20°C/1 year **Web:** [www.signalwayantibody.com](http://www.signalwayantibody.com)



Application	Species Reactivity	Source	Molecular Wt.
WB IHC	Human	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 Akt protein.

**Immunogen:** Peptide sequence around aa.306~310 (M-K-T-F-C) derived from Human AKT1.

**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.

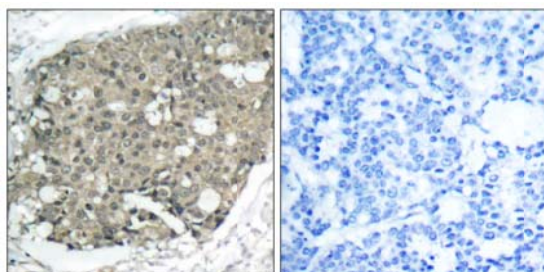
**Synonyms:** RAC-PK-alpha  
Protein kinase B

**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:

Tremblay F, et al. (2005) Diabetes; 54(9): 2674-84.  
Xu BE, et al. (2005) J Biol Chem; 280(40): 34218-23.  
Samuels Y, et al. (2005) Cancer Cell; 7(6): 561-73.  
Di Maira G, et al. (2005) Cell Death Differ; 12(6): 668-77.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Akt (Ab-308) Antibody #21055 (left) or the same antibody preincubated with blocking peptide (right).

### Citation:

Nabissi Massimo, Morelli Maria Beatrice, Amantini Consuelo, et al. TRPV2 channel negatively controls glioma cell proliferation and resistance to Fas-induced apoptosis in ERK-dependent manner. Carcinogenesis. 0: bgq019v1-bgq019. (2010)

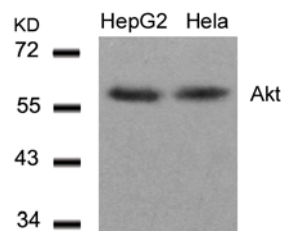
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**Related Pathway:** Akt, Insulin/Glucose, Jak/Stat, Cytoskeletal/Adhesion, Wnt/beta-catenin

**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.

### Recommended Dilutions:

Western blotting 1:500~1:1000  
Immunohistochemistry 1:50~1:100



Western blot analysis of extracts from HepG2 and Hela cells using Akt (Ab-308) Antibody #21055.