Data Sheet (Cat.No.TMAC-00124)

Anti-Phospho-AKT1 (Thr450) Polyclonal Antibody

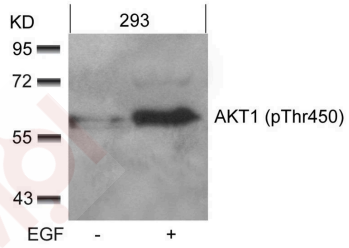
Product Details

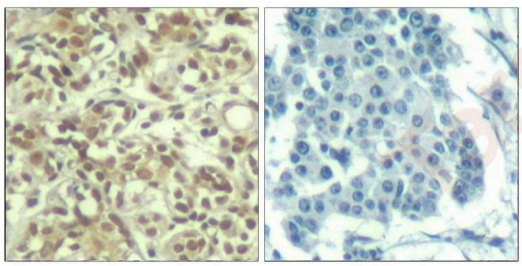
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Purification:	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.

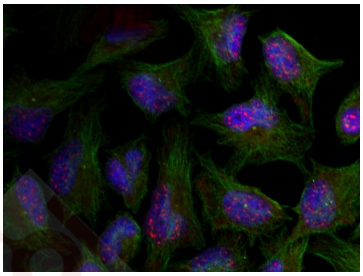
Applications

Verified Activity:

1. Western blot analysis of extracts from 293 cells untreated or treated with EGF using AKT1 (phospho-Thr450) Antibody TMAC-00124.
2. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using AKT1(Phospho-Thr450) Antibody TMAC-00124(left) or the same antibody preincubated with blocking peptide(right).
3. Immunofluorescence staining of methanol-fixed Hela cells using AKT1(phospho-Thr450) Antibody TMAC-00124.







Application:	IF,IHC,WB

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Peptide sequence around phosphorylation site of threonine 450 (T-I-T(p)-P-P) derived from Human AKT1
Antigen Species:	human
Uniprot ID:	P31749
Synonyms:	p-AKT1 (Thr450);AKT1 (p-Thr450);p-AKT1 (T450);AKT1 (p-T450)

Research 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.

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