Data Sheet (Cat.No.TMAY-01625)

TargetMol

Anti-Phospho-AKT (Ser473) Antibody (9E602)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9E602
Purification:	Protein A

Applications

Verified Activity:	Western blot analysis of extracts from serum-starved NIH-3T3, untreated (-); treated with PDGFA (5 μg/mL, 5 min; +), using Phospho-AKT (Ser473) rabbit monoclonal Antibody at 1:1000 dilution.
Application:	WB
Recommended	WB: 1:1000-1:5000

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. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: residues around Ser473 of Human Phospho-AKT
Antigen Species:	Human
Synonyms:	Phospho-AKT (S473);AKT;RAC;p-AKT (S473);p-AKT (Ser473);PKB-ALPHA;PKB;PRKBA;AKT (p-Ser473);RAC-ALPHA;AKT (p-S473)
Biology Area:	Cancer Drug Targets

Research Background

v-akt murine thymoma viral oncogene homolog 1 (AKT1), or protein kinase B-alpha (PKB-ALPHA) is a serine-threonine protein kinase, belonging to the Protein Kinase Superfamily. AKT1 is a major mediator of the responses to insulin, insulin-like growth factor 1 (IGF1), and glucose. AKT1 also plays a key role in the regulation of both muscle cell hypertrophy and atrophy. AKT1 activity is required for physiologic cardiac growth in response to IGF1 stimulation or exercise training. In contrast, AKT1 activity was found to antagonize pathologic cardiac growth that occurs in response to endothelin 1 stimulation or pressure overload. AKT1 selectively promotes physiological cardiac growth while AKT2 selectively promotes insulin-stimulated cardiac glucose metabolism. AKT1 deletion prevented tumor initiation as well as tumor progression, coincident with decreased Akt signaling in tumor tissues. AKT1 is the primary Akt isoform activated by mutant K-ras in lung tumors, and that AKT3 may oppose AKT1 in lung tumorigenesis and lung tumor progression. A number of separate studies have implicated AKT1 as an inhibitor of breast epithelial cell motility and invasion. AKT1 may have a dual role in tumorigenesis, acting not only pro-oncogenically by suppressing apoptosis but also anti-oncogenically by suppressing invasion and metastasis.Cancer ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

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