

AKT1 Polyclonal Antibody

Catalog Number: E90380

Amount: 100ul, 100ug/100ul

Background: The mammalian target of

The mammalian target of rapamycin (mTOR, FRAP, RAFT) is a Ser/Thr protein kinase (1-3) that functions as an ATP and amino acid sensor to balance nutrient availability and cell growth (4,5). When sufficient nutrients are available, mTOR responds to a phosphatidic acid-mediated signal to transmit a positive signal to p70 S6 kinase and participate in the inactivation of the eIF4E inhibitor, 4E-BP1 (6). These events result in the translation of specific mRNA subpopulations. mTOR is phosphorylated at Ser2448 via the PI3 kinase/Akt signaling pathway and autophosphorylated at Ser2481 (7,8). mTOR plays a key role in cell growth and homeostasis and may be abnormally regulated in tumors. For these reasons, mTOR is currently under investigation as a potential target for anti-cancer therapy (9).

Calculated MW: 289kDa

Form of Antibody: Rabbit IgG in PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Storage/Stability: Store at -20oC or -80oC. Avoid freeze / thaw cycles.

Immunogen: A synthetic peptide of human mTOR

Gene ID: 2475

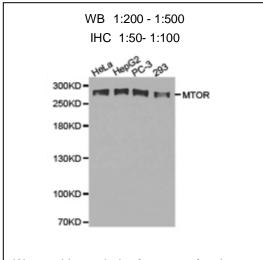
Synonyms: FLJ44809; FRAP; FRAP2; MTOR; RAFT1; RAPT1;

Purification: Affinity purification **Reactivity:** Human, Mouse, Rat

Applications: WB IHC **Swiss-Prot No.:** P42345

References: 1. Sabers, C.J. et al. (1995) J Biol Chem 270, 815-22.

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- 5. Dennis, P.B. et al. (2001) Science 294, 1102-5.
- 6. Fang, Y. et al. (2001) Science 294, 1942-5.
- 7. Navé, B.T. et al. (1999) Biochem J 344 Pt 2, 427-31.
- 8. Peterson, R.T. et al. (2000) J Biol Chem 275, 7416-23.
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Western blot analysis of extracts of various cell lines, using MTOR antibody.

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