

## mTOR

**Reactivity:**Human

**Tested applications:**WB IHC IF

**Recommended Dilution:**WB 1:200 - 1:500 IHC 1:50 - 1:100 IF 1:50 - 1:200

**Calculated MW:**289kDa

**Observed MW:**Refer to Figures

**Immunogen:**

A synthetic peptide of human mTOR

**Storage Buffer:**

Store at 4. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

**Concentration:**

cfor

**Synonym:**

FLJ44809; FRAP; FRAP2; MTOR; RAFT1; RAPT1;

**Catalog #:**A0380

**Antibody Type:**

Polyclonal Antibody

**Species:**Rabbit

**Gene ID:**2475

**Isotype:**IgG

**Swiss Prot:**P42345

**Purity:**Affinity purification

For research use only.

**Background:**

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).

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