Phospho-mTOR (Ser2448) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

**Applications:** WB, W-S

**Reactivity:** H M R Mk

**Sensitivity:** Endogenous

**MW (kDa):** 289

**Source:** Rabbit

**UniProt ID:** #P42345

**Entrez-Gene Id:** 2475

**Product Usage Information**

**Application**

- Western Blotting
- Simple Western™

**Dilution**

- 1:1000
- 1:10 - 1:50

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

Phospho-mTOR (Ser2448) Antibody detects endogenous levels of mTOR only when phosphorylated at Ser2448.

**Species predicted to react based on 100% sequence homology:** Horse

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser2448 of human mTOR. Antibodies are purified by protein A and peptide affinity chromatography.

**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).

**Background References**


**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

- WB: Western Blotting
- W-S: Simple Western™

**Cross-Reactivity Key**

- H: human
- M: mouse
- R: rat
- Hm: hamster
- Mk: monkey
- V: virus
- M: mink
- C: chicken
- Dm: D. melanogaster
- X: Xenopus
- Z: zebrafish
- B: bovine
- Dg: dog
- Pg: pig
- Sc: S. cerevisiae
- Ce: C. elegans
- Hr: horse
- GP: Guinea Pig
- Rab: rabbit
- All: all species expected

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