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## MTOR (C1) Antibody, Rabbit Polyclonal

**Cat#: R0847-2**

**Quantity: 100 ul**

**Predicted | Observed MW: 289 kDa**

**Lot#: Refer to vial**

**Application: WB**

**Uniprot ID: P42345**

### **Background:**

Serine/threonine-protein kinase mTOR belongs to the PI3/PI4-kinase family. mTOR is a central regulator of cellular metabolism, growth and survival in response to hormones, growth factors, nutrients, energy and stress signals. mTOR functions as part of 2 structurally and functionally distinct signaling complexes mTORC1 and mTORC2 (mTOR complex 1 and 2). Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. This includes phosphorylation of EIF4EBP1 and release of its inhibition toward the elongation initiation factor 4E (eIF4E). Moreover, phosphorylates and activates RPS6KB1 and RPS6KB2 that promote protein synthesis by modulating the activity of their downstream targets including ribosomal protein S6, eukaryotic translation initiation factor EIF4B and the inhibitor of translation initiation PDCD4. mTOR also regulates ribosome synthesis by activating RNA polymerase III-dependent transcription through phosphorylation and inhibition of MAF1 a RNA polymerase III-repressor.

### **Other Names:**

Serine/threonine-protein kinase Mtor, FK506-binding protein 12-rapamycin complex-associated protein 1, FKBP12-rapamycin complex-associated protein, Mammalian target of rapamycin, mTOR, Mechanistic target of rapamycin, Rapamycin and FKBP12 target 1, Rapamycin target protein 1, FRAP, FRAP1, FRAP2, RAFT1, RAPT1

### **Source and Purity:**

Rabbit polyclonal antibodies were produced by immunizing animals with a GST-fusion protein containing the C-terminal region of human mTOR. Antibodies were purified by affinity purification using immunogen.

### **Storage Buffer and Condition:**

Supplied in 1 x PBS (pH 7.4), 100 ug/ml BSA, 40% Glycerol, 0.01% NaN<sub>3</sub>. Store at -20 °C. Stable for 6 months from date of receipt.

### **Species Specificity:**

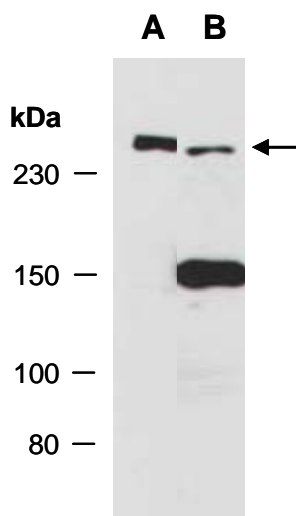
Human, Mouse

**Tested Applications:**

WB: 1:1,000-1:3,000 (detect endogenous protein\*)

\*: The apparent protein size on WB may be different from the calculated M.W. due to modifications.

**Product Data:**



**Fig 1.** Western blot of total cell extracts from A) mouse brain; B) human Jurkat; using anti-MTOR (C1) (R0847-2) at RT for 2 h.