

## Product datasheet for **AP06628PU-N**

### MTOR Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	<b>Western blot:</b> 1/500-1/1000. <b>Immunohistochemistry on Paraffin Sections:</b> 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to amino acids 2430-2480 of Human mTOR.
Specificity:	This antibody detects endogenous levels of mTOR protein (region surrounding Ser2442)
Formulation:	Phosphate buffered saline (PBS), pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% (by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 289 kDa
Gene Name:	mechanistic target of rapamycin
Database Link:	<a href="#">Entrez Gene 2475 Human P42345</a>



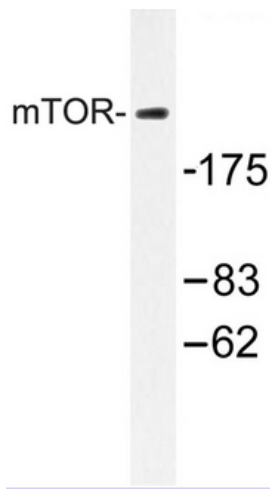
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**Background:**

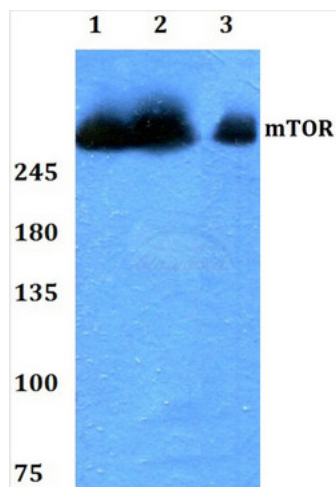
mTOR, or FKBP12-rapamycin associated protein (FRAP), is one of a family of proteins involved in cell cycle progression, DNA recombination, and DNA damage detection. In rat, it is a 245-kD protein (symbolized RAFT1) with significant homology to the *Saccharomyces cerevisiae* protein TOR1 and has been shown to associate with the immunophilin FKBP12 in a rapamycin-dependent fashion. The FKBP12-rapamycin complex is known to inhibit progression through the G1 cell cycle stage by interfering with mitogenic signaling pathways involved in G1 progression in several cell types, as well as in yeast. The binding of FRAP to FKBP12-rapamycin correlated with the ability of these ligands to inhibit cell cycle progression.

**Synonyms:**

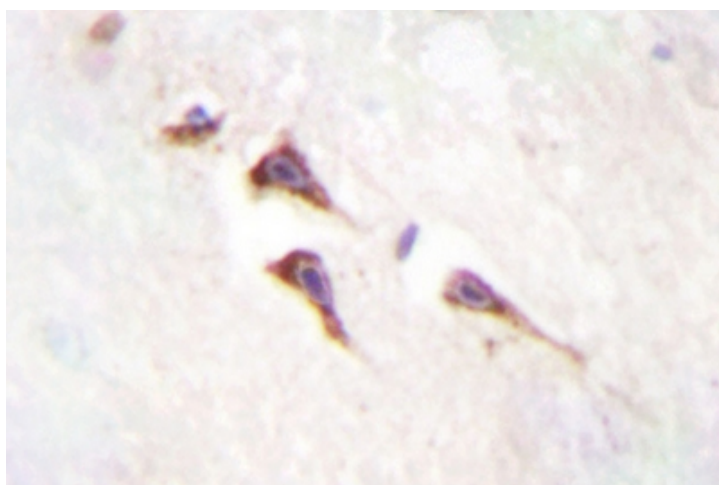
Mammalian target of rapamycin, TOR, FRAP, FRAP2, RAPT1

**Product images:**


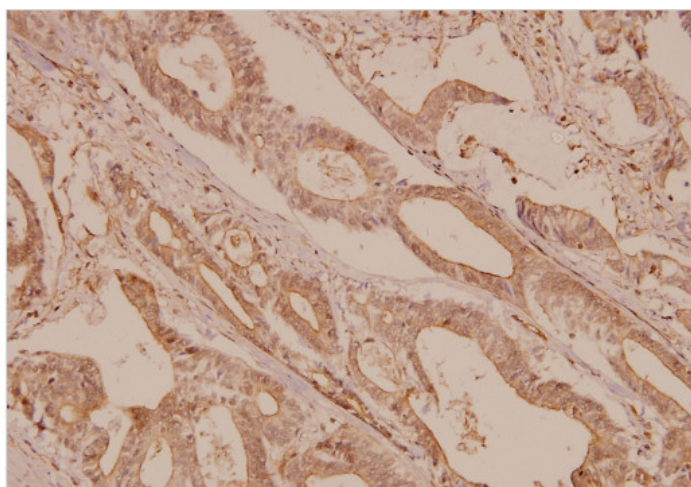
Western blot (WB) analysis of mTOR antibody in extracts from NIH/3T3 cells treated with Wortmannin 40mM 24hours.



Western blot (WB) analysis of mTOR antibody at 1/500 dilution: Lane 1: HEK293T whole cell lysate. Lane 2: sp2/0 whole cell lysate. Lane 3: H9C2 whole cell lysate.



Immunohistochemistry (IHC) analysis of mTOR antibody in paraffin-embedded human brain tissue.



Immunohistochemistry (IHC) analysis of mTOR antibody in paraffin-embedded human colorectal carcinoma tissue at 1/50 dilution.