

Product datasheet for **AP02480PU-N**

MTOR pSer2448 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Immunofluorescence: 1/100-1/200. Western Blot: 1/500-1/1000. Incubate membrane with diluted antibody in 5% nonfat milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight. Immunohistochemistry on Paraffin-Embedded Sections: 1/50-1/100.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthesized phosphopeptide derived from human mTOR around the phosphorylation site of serine 2448 (T-D-SP-Y-S)
Specificity:	This antibody detects endogenous levels of mTOR only when phosphorylated at serine 2448.
Formulation:	PBS (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol. State: Aff - Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Purification:	Affinity Chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
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 (Predicted)
Gene Name:	mechanistic target of rapamycin
Database Link:	Entrez Gene 2475 Human P42345



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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 289-kDa 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

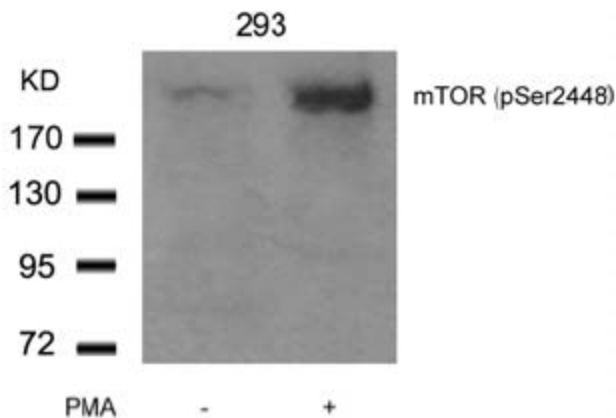
Product images:


Figure 3. Western blot analysis of extracts from 293 cells untreated or treated with PMA using mTOR (Phospho-Ser2448) antibody

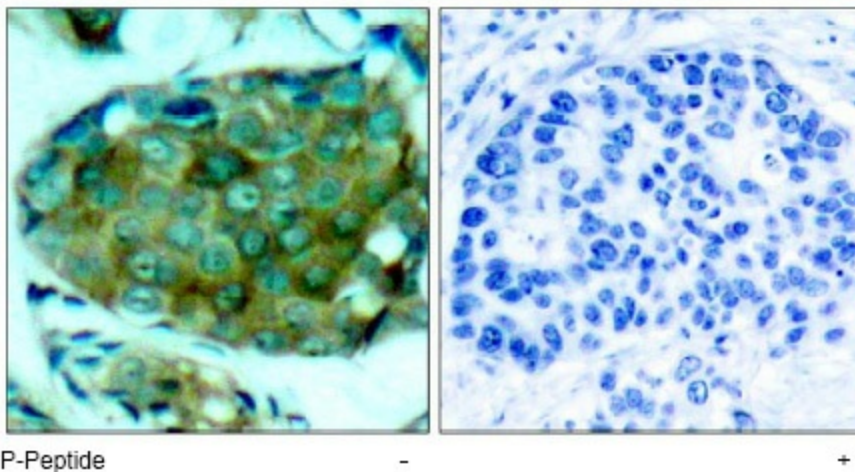


Figure 1. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using mTOR pSer2448 antibody.

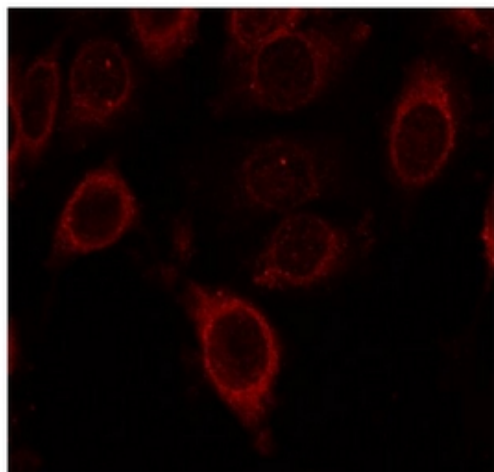


Figure 2. Immunofluorescence staining of methanol-fixed MCF7 cells using mTOR pSer2448 antibody (Red).