

Datasheet for 600-401-FM1**mTOR Antibody****Overview**

Description:	Anti-mTOR (RABBIT) Antibody - 600-401-FM1
Item No.:	600-401-FM1
Size:	100 µg
Applications:	ELISA, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	The mammalian Target of Rapamycin (mTOR) is an evolutionarily conserved serine/threonine kinase that regulates cell growth and cell cycle through its ability to integrate signals from nutrient levels and growth factors. It was initially discovered as a kinase whose ability to stimulate T cell proliferation in response to IL-2 could be inhibited by the immunosuppressive drug rapamycin. Rapamycin inhibits mTOR in other cell types resulting in reduced cell growth and reduced rates of cell cycle and cell proliferation. mTOR is normally associated with the regulatory proteins RAPTOR and GbetaL. Its downstream targets are thought to be the ribosomal protein S6 kinases and the eukaryotic initiation factor 4E binding proteins (4EBPs). Regulation of these protein families allows mTOR to control protein biosynthesis.
Synonyms:	TOR Antibody, FRAP, FRAP1, FRAP2, RAFT1, RAPT1, FRAP, FK506-binding protein 12-rapamycin complex-associated protein 1, mTOR
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	FRAP1
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-mTOR antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide from near the N-terminus of human mTOR.
Purity/Specificity:	Anti-mTOR Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with mTOR from other sources has not been determined.
Relevant Links:	• UniProtKB - P42345 • GeneID - 2475 • NCBI - 1169735

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Anti-mTOR Antibody has been tested for use in ELISA, Western blotting, immunocytochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 289 kDa in Western blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:20,000
WB:	1-2 µg/mL

Formulation

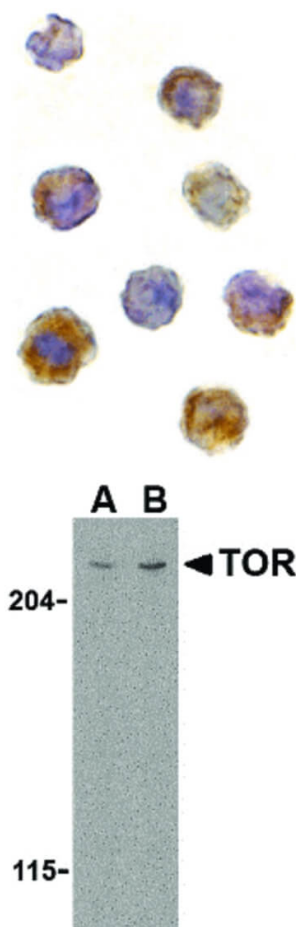
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry

Immunocytochemistry of mTOR antibody. Cell Type: L1210 cells. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: mTOR antibody at 2 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: mTOR is located in the cell membrane, cytoplasm, cytoplasmic vesicle, cytoskeleton, and cell membrane. Staining: mTOR is stained brown with hematoxylin purple nuclear counterstain.

Western Blot

Western blot of mTOR antibody in L1210 cell lysate. Lane A: mTOR antibody at 1 µg/mL. Lane B: mTOR antibody 2 µg/mL. Load: 35 µg per lane. Primary antibody: mTOR antibody at 1:400 for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 70 kDa, 210 kDa for mTOR. Other band(s): mTOR splice variants and isoforms.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.