novex
by life technologies

ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody

Store at 2°C to 8°C (short-term), or –20°C (long-term)

Catalog Number 701483

Pub. No. MAN0007789 **Rev.** 1.00

Clonality: Monoclonal	**Quantity**: 100 µg	**Volume**: 200 µL	**Concentration**: 0.5 mg/mL
Host/Class: Rabbit IgG	**Reactivity**: Human	**Predicted Reactivity**: Human mTOR	

Product description

Mammalian target of rapamycin (mTOR) is a serine/threonine kinase that plays a key role in cell growth, cell proliferation, and protein synthesis. mTOR mediates phosphoinositide 3-kinase and Akt/PKB signaling, resulting in phosphorylation of 4EBP1, and initiation of mRNA translation. A second pathway involves regulation of ribosomal S6 kinase, which affects ribosome biogenesis and translation elongation.

Product specifications

Immunogen:	Recombinant protein corresponding to amino acids 1126–1411 of human mTOR
Alternate Names:	FRAP, FRAP1, FRAP2, RAFT1, RAPT1, Mechanistic target of rapamycin, Rapamycin and FKBP12 target 1, Rapamycin target protein 1
Apparent MW:	~289 kDa
Gene ID:	2475
Protein Accession No.:	P42345
Sequence Identity:	Human
Isotype:	IgG
Lot:	See product label

Product applications

Application	Species	Test Material	Concentration
Western blotting	Human	Hek293 cells	2–3 µg/mL
Immunocyto-chemistry	Human	HeLa cells	1–2 µg/mL
Flow cytometry	Human	HeLa cells	1 µg for 1 × 10^6 cells
Indirect ELISA	Human	Peptide	1.5 × 10^{-4} to 3 µg/mL

Storage and handling

Store the antibody at 2°C to 8°C for up to 1 month, or –20°C for long storage. Avoid repeated freezing and thawing.

Stability

When stored as instructed, expires one year from date of receipt unless otherwise indicated on product label.

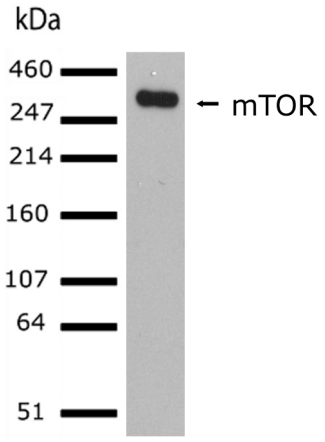

Figure 1 Western blot analysis of ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody (Cat. no. 701483).

Western blot analysis was performed on whole cell extracts from serum starved HEK293. Endogenous level of mTOR was detected at ~289 kDa using ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody at a concentration of 2 µg/mL, followed by Goat Anti-Rabbit HRP (Cat. no. G21234) as a secondary antibody. The blot was developed using enhanced chemiluminescence (ECL) method.

Storage buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

CAUTION! Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheet (SDS) and follow the handling instructions. Wear appropriate protective eyewear, clothing and gloves. SDSs are available at **www.lifetechnologies.com/support**.

Product documentation

To obtain a Certificate of Analysis or Safety Data Sheet (SDS), visit **http://www.lifetechnologies.com/support**.

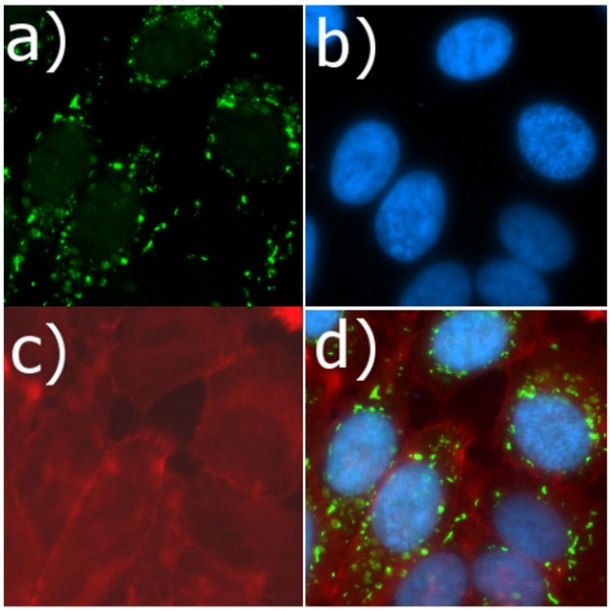

Figure 2 Immunocytochemistry analysis of ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody (Cat. no. 701483).

Immunocytochemistry analysis of HeLa cells stained with ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody using a: Alexa Fluor® 488 goat anti-rabbit as a secondary antibody (green). b: DAPI stained HeLa nuclei (blue). c: Actin stained with Alexa Fluor® 594 phalloidin (red). d: Composite image of cells showing cytoplasmic and nuclear localization of mTOR.

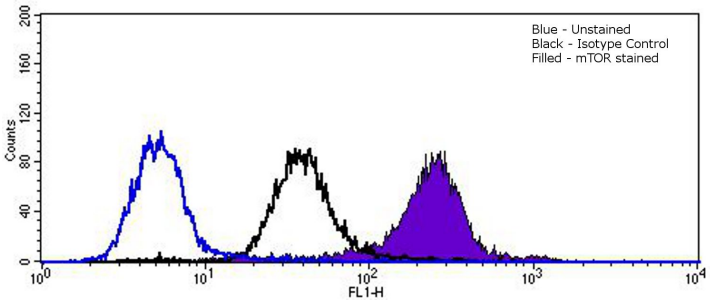

Figure 3 Flow cytometry analysis of HeLa cells labelled with ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody (Cat. no. 701483).

Fixed and permeabilized HeLa cells were labelled with ABfinity™ mTOR Recombinant Rabbit Monoclonal Antibody, followed by Alexa Fluor® 488 goat anti-rabbit IgG staining (right peak, filled). To confirm specificity, the cells were labeled with an isotype control, stained using Alexa Fluor® 488 goat anti-rabbit IgG (middle peak, black), and unstained cells (left peak, blue).

Limited product warranty

Life Technologies Corporation and/or its affiliate(s) warrant their products as set forth in the Life Technologies' General Terms and Conditions of Sale found on Life Technologies' website at **www.lifetechnologies.com/termsandconditions**. If you have any questions, please contact Life Technologies at **www.lifetechnologies.com/support**.

Explanation of Symbols

Symbol	Description	Symbol	Description	Symbol	Description
	Manufacturer	REF	Catalog number	LOT	Batch code
	Use by		Temperature limitation		
	Consult instructions for use		Caution, consult accompanying documents		