

**mTOR/FRAP Rabbit Monoclonal Antibody
Product Data Sheet**

Catalog # 1612-1

Clone ID: Y391 **Lot #:** YC120501
Quantity: 100 µl
Type: Rabbit Monoclonal IgG
Species Cross-reactivity: + Human + Mouse + Rat
Applications: + WB + IHC + ICC + Flow Cytometry + IP
Molecular Wt.: 289 kDa
UniProt ID: P42345

Background: The mammalian target of rapamycin (mTOR) is a major effector of cell growth and proliferation via the regulation of protein synthesis. mTOR is composed of an N-term; 20 tandem repeats- HEAT which are implicated in protein-protein interactions and a C-term; which includes a FAT domain, a FBR domain, a kinase domain, a NDR domain and a FATC domain. The FATC domain is essential to mTOR activity and the deletion of a single amino acid from this domain abrogates the activity. mTOR can be auto-phosphorylated via its intrinsic serine/threonine kinase activity. mTOR regulates protein synthesis through the phosphorylation and inactivation of the repressor of mRNA translation 4E-BP1 and through the phosphorylation and activation of S6 kinase. RAPTOR (regulatory associated protein of TOR) is a positive regulator of TOR. Other known mediators of mTOR include PI3-K and ATK from the insulin pathway.

Specificity: A synthetic peptide corresponding to residues near the C-term of PI3K/PI4K domain of human mTOR/FRAP was used as an immunogen

Storage Conditions: [Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:

WB: 1:1,000-2,000
IHC: 1:250-500
ICC: 1:50-100
Flow Cytometry: 1: 80
IP: 1:50

Background References:

Hay, N.; Sonenberg, N. :Genes Dev. 18: 1926-1945, 2004.

Product QC'd by: _____

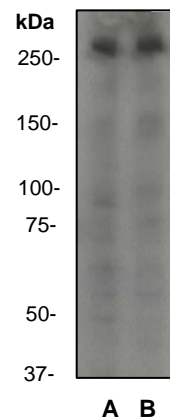


Fig 1. Western blot analysis of anti-mTOR/FRAP RabMab (cat. # 1612-1), dilution 1:2,000.
A: Hela
B: MCF-7

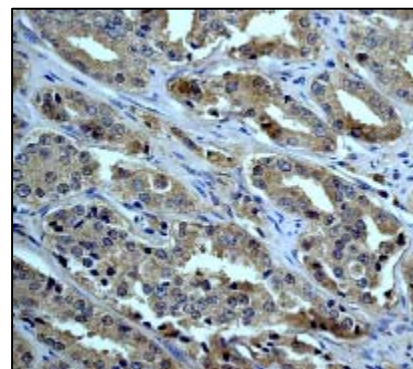


Fig 2. Immunohistochemical analysis of paraffin-embedded human prostate carcinoma using anti-mTOR/FRAP RabMab (cat. # 1612-1).

For research use only. Not for use in diagnostic or therapeutic applications.

This product was manufactured under U.S. Patent No. 5,675,063. For a complete list of protocols and available related products, please visit www.epitomics.com.

Epitomics, Inc., 863 Mitten Road, Suite 103 Burlingame, California 94010-1303

Rev. A/04-05/JS