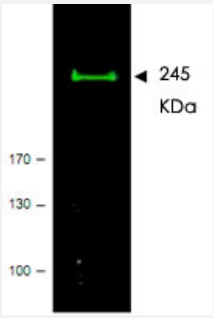
MTOR polyclonal antibody

Catalog # PAB10278 Size 100 ug

Applications



Western Blot (Cell lysate)

Western blot using MTOR polyclonal antibody (Cat # PAB10278) shows detection of a band ~ 245 KDa corresponding to human MTOR (arrowhead). Approximately 30 ug of HEK293 cell lysate was separated by 4-8% SDS-PAGE and transferred onto nitrocellulose.
After blocking, the membrane was probed with the primary antibody diluted to 1 : 650 for 2h at RT.
The membrane was washed and reacted with a 1 : 10,000 dilution of IRDye™800 conjugated Gt-a-Rabbit IgG [H&L] MX for 45 min at room temperature.
IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR.
IRDye is a trademark of LI-COR, Inc.

Specification

Product Description	Rabbit polyclonal antibody raised against synthetic peptide of MTOR.
Immunogen	A synthetic peptide corresponding to amino acids 2440-2457 of human MTOR.
Host	Rabbit
Reactivity	Dog, Human, Mouse, Rat
Specificity	Reactivity occurs with both phosphorylated and non-phosphorylated forms of mTOR at S2448 from human derived tissues and cells.
Form	Liquid
Quality Control Testing	Antibody Reactive Against Synthetic Peptide.

Recommend Usage	ELISA (1:4000-1:20000) Western Blot (1:250-1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	In 20 mM KH_2PO_4, 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which shoul d be handled by trained staff only.

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- Enzyme-linked Immunoabsorbent Assay

Gene Info — MTOR

Entrez GeneID	2475
Protein Accession#	P42345
Gene Name	MTOR
Gene Alias	FRAP, FRAP1, FRAP2, RAFT1, RAPT1
Gene Description	mechanistic target of rapamycin
Omim ID	601231
Gene Ontology	Hyperlink

Gene Summary	The protein encoded by this gene belongs to a family of phosphatidylinositol kinase-related kinases. These kinases mediate cellular responses to stresses such as DNA damage and nutrient deprivation. This protein acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin complex. The ANGPTL7 gene is located in an intron of this gene. [provided by RefSeq
Other Designations	FK506 binding protein 12-rapamycin associated protein 1|FK506 binding protein 12-rapamycin associated protein 2|FK506-binding protein 12-rapamycin complex-associated protein 1|FKBP-rapamycin associated protein|FKBP12-rapamycin complex-associated protein 1

Publication Reference

- Phospholipase D confers rapamycin resistance in human breast cancer cells.

  Chen Y, Zheng Y, Foster DA.

  Oncogene 2003 Jun; 22(25):3937.

- Stimulation of signal transducer and activator of transcription-1 (STAT1)-dependent gene transcription by lipopolysaccharide and interferon-gamma is regulated by mammalian target of rapamycin.

  Kristof AS, Marks-Konczalik J, Billings E, Moss J.

  The Journal of Biological Chemistry 2003 Sep; 278(36):33637.

  Application: WB-Ce, WB-Tr, Human, A549 cells

- The mammalian target of rapamycin (mTOR) partner, raptor, binds the mTOR substrates p70 S6 kinase and 4E-BP1 through their TOR signaling (TOS) motif.

  Nojima H, Tokunaga C, Eguchi S, Oshiro N, Hidayat S, Yoshino K, Hara K, Tanaka N, Avruch J, Yonezawa K.

  The Journal of Biological Chemistry 2003 May; 278(18):15461.

  Application: IP, WB-Tr, Human, HEK 293 cells

Pathway

- Acute myeloid leukemia
- Adipocytokine signaling pathway
- ErbB signaling pathway
- Glioma
- Insulin signaling pathway
- mTOR signaling pathway

- Pathways in cancer
- Prostate cancer
- Type II diabetes mellitus

Disease

- Adenocarcinoma
- Alzheimer disease
- Cardiovascular Diseases
- Colonic Neoplasms
- Diabetes Complications
- Esophageal Neoplasms
- Kidney Failure
- Metabolic Syndrome X
- Neoplasms
- Osteoporosis
- Rectal Neoplasms
- Tobacco Use Disorder