

## mTOR Monoclonal antibody

Catalog Number: 66888-1-Ig

Featured Product

269 Publications

## Basic Information

## Catalog Number:

66888-1-Ig

## Size:

1000 µg/ml

## Source:

Mouse

## Isotype:

IgG2a

## Immunogen Catalog Number:

AG28395

## GenBank Accession Number:

NM\_004958

## GeneID (NCBI):

2475

## UNIPROT ID:

P42345

## Full Name:

FK506 binding protein 12-rapamycin associated protein 1

## Calculated MW:

289 kDa

## Observed MW:

250-289 kDa

## Purification Method:

Protein A purification

## CloneNo.:

1G11A3

## Recommended Dilutions:

WB 1:5000-1:50000

IP 0.5-4.0 µg for 1.0-3.0 mg of total protein lysate

IHC 1:1000-1:4000

IF 1:400-1:1600

## Applications

## Tested Applications:

IF/ICC, IHC, IP, WB, ELISA

## Cited Applications:

WB, IP, IF, PLA, IHC

## Species Specificity:

Human, Mouse, Rat

## Cited Species:

human, goat, rat, zebra finches, mouse, hamster, pig

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

## Positive Controls:

**WB**: LNCaP cells, HEK-293 cells, HeLa cells, mouse brain tissue, rat brain tissue, ROS1728 cells, Caco-2 cells, HepG2 cells, Jurkat cells, NCI-H1299 cells, THP-1 cells, K-562 cells, HSC-T6 cells, NIH/3T3 cells

**IP**: HeLa cells,

**IHC**: human colon cancer tissue, human breast cancer tissue, human liver cancer tissue

**IF**: HepG2 cells, HeLa cells

## Background Information

mTOR, also named as FRAP1, FRAP, FRAP2 and RAPT1, belongs to the PI3/PI4-kinase family. mTOR is a Ser/Thr protein kinase that functions as an ATP and amino acid sensor to balance nutrient availability and cell growth. mTOR is kinase subunit of both mTORC1 and mTORC2, which regulate cell growth and survival in response to nutrient and hormonal signals. mTORC1 is activated in response to growth factors or amino-acids. mTORC2 is also activated by growth factors, but seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTOR has a calculated molecular mass of 289 kDa, and always can be detected at about 250 kDa due to some modifications (PMID: 14578359).

## Notable Publications

Author	Pubmed ID	Journal	Application
YanHua Fan	36174847	Fitoterapia	WB
Guangjie Zhao	36163180	Cell Death Discov	WB
Jingjing Zheng	32978798	Ann N Y Acad Sci	WB

## Storage

## Storage:

Store at -20°C. Stable for one year after shipment.

## Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

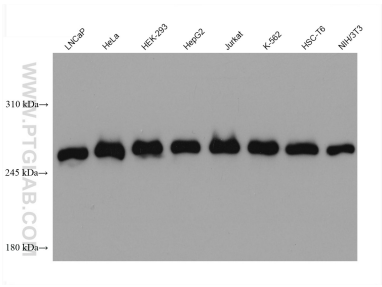
For technical support and original validation data for this product please contact:

T: 4006900926

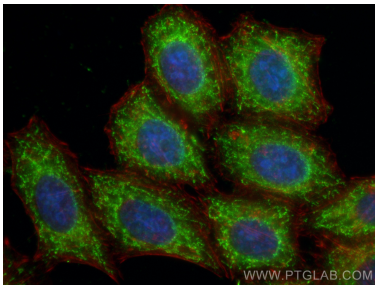
E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

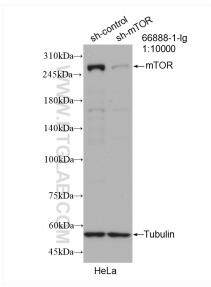
Selected Validation Data



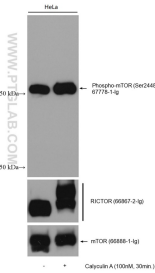
Various lysates were subjected to SDS PAGE followed by western blot with 66888-1-Ig (mTOR antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



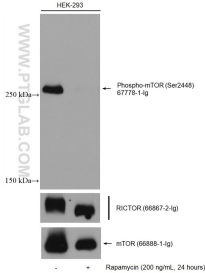
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using mTOR antibody (66888-1-Ig, Clone: 1G11A3 ) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-Phalloidin (red).



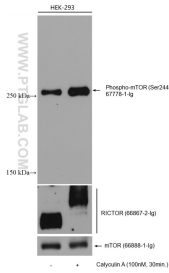
WB result of mTOR antibody (66888-1-Ig; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-mTOR transfected HeLa cells.



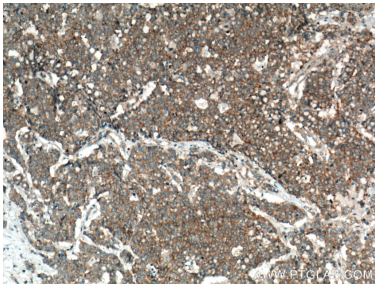
Non-treated and Calyculin A treated HeLa cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) and mTOR antibody (66888-1-Ig) subsequently.



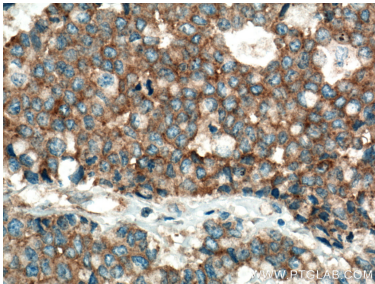
Non-treated and Rapamycin treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) and mTOR antibody (66888-1-Ig) subsequently.



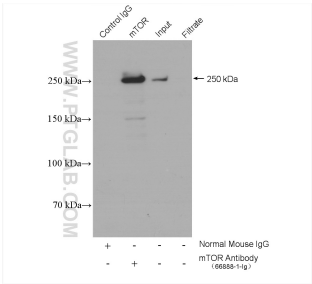
Non-treated and Calyculin A treated HEK-293 cells were subjected to SDS PAGE followed by western blot with 67778-1-Ig (Phospho-mTOR (Ser2448) antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with RICTOR antibody (66867-2-Ig) and mTOR antibody (66888-1-Ig) subsequently.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 66888-1-Ig (MTOR antibody) at dilution of 1:2500 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 66888-1-Ig (MTOR antibody) at dilution of 1:2500 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-mTOR (IP:66888-1-Ig, 5ug; Detection:66888-1-Ig 1:20000) with HeLa cells lysate 1600 ug.