

For Research Use Only

mTOR Polyclonal antibody

Catalog Number: 28273-1-AP

Featured Product

126 Publications



Basic Information

Catalog Number:

28273-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

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:

Antigen affinity purification

Recommended Dilutions:

WB 1:2000-1:10000

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

IHC 1:50-1:500

IF/ICC 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF/ICC, IP, ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

Human

Cited Species:

human, mouse, rat, rabbit, monkey, chicken, bovine

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: HeLa cells, HepG2 cells, Rapamycin treated HEK-293T cells, PC-3 cells, MCF-7 cells, Rapamycin treated MCF-7 cells

IP: HeLa cells,

IHC: human prostate cancer tissue, human breast cancer tissue

IF/ICC: HeLa cells, HepG2 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 |
|-----------|-----------|---------------------|-------------|
| Lihua Luo | 34593005 | J Nanobiotechnology | WB |
| Lei Li | 36165926 | Free Radic Biol Med | WB |
| Chun Pan | 36115647 | Toxicology | WB |

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

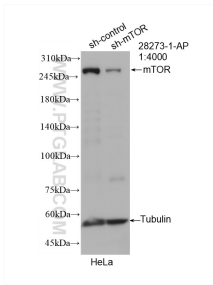
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

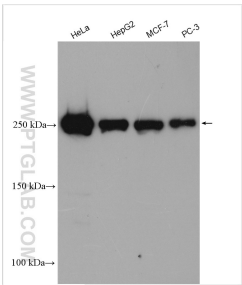
E: proteintech@ptglab.com
W: ptglab.com

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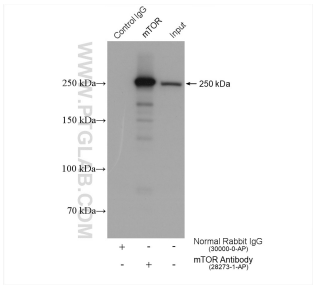
Selected Validation Data



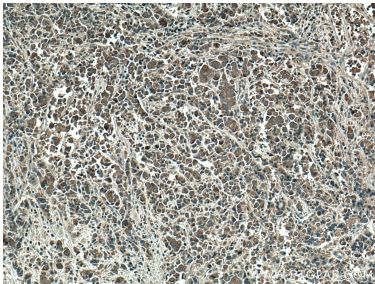
WB result of mTOR antibody (28273-1-AP; 1:4000; incubated at room temperature for 1.5 hours) with sh-Control and sh-mTOR transfected HeLa cells.



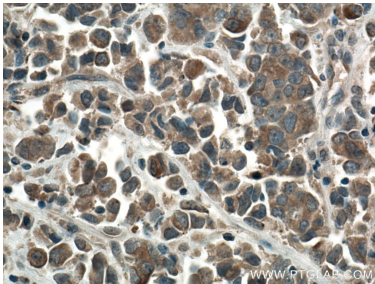
Various lysates were subjected to SDS PAGE followed by western blot with 28273-1-AP (mTOR antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



IP result of anti-mTOR (IP:28273-1-AP, 4ug; Detection:28273-1-AP 1:5000) with HeLa cells lysate 1720 ug.



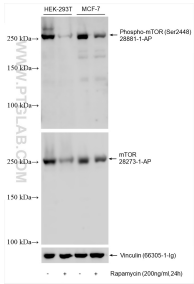
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 28273-1-AP (MTOR antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 28273-1-AP (MTOR antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using mTOR antibody (28273-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L), CL594-Phalloidin (red).



Non-treated and Rapamycin treated lysates were subjected to SDS PAGE followed by western blot with 28881-1-AP (Phospho-mTOR (Ser2448) antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with mTOR antibody (28273-1-AP) and Vinculin (66305-1-Ig) subsequently.