For Research Use Only

mTOR Polyclonal antibody

Catalog Number:20657-1-AP Featured Product 203 Publications

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Basic Information

Catalog Number:
20657-1-AP

Size:
150ul , Concentration: 327 μg/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

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:

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB: 1:500-1:1000
IHC: 1:50-1:500
IF/ICC: 1:50-1:500

Applications

Tested Applications:
WB, IF, IHC, ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig, canine, chicken, bovine, hamster, fish

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 : MCF-7 cells, MDA-MB-453s cells, HeLa cells

IHC : mouse testis tissue, human breast cancer tissue

IF/ICC : 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). The antibody is specific to MTOR.

Notable Publications

Author	Pubmed ID	Journal	Application
Samana Batool	30274346	Int J Mol Sci	WB
Fan Wang	28990055	Mol Med Rep	WB
Jing Chen	34650978	Front Cell Dev Biol	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
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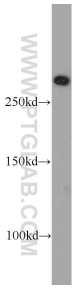
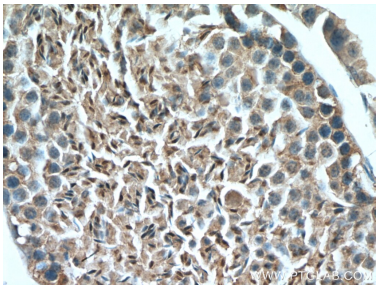
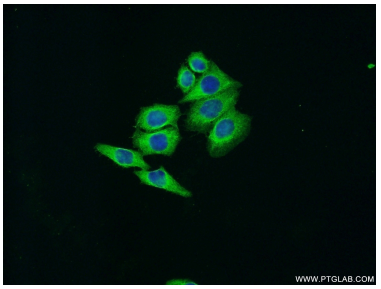
Selected Validation Data



MCF7 cells were subjected to SDS PAGE followed by western blot with 20657-1-AP (MTOR antibody) at dilution of 1:500 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 20657-1-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 HeLa cells using 20657-1-AP (MTOR antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated Goat Anti-Rabbit IgG(H+L).