## Phospho-mTOR (Ser2481) Ab

Cat.#: AF3309 Concn.: 1mg/ml Mol.Wt.: 250-289 kDa Size: 100ul,200ul Source: Rabbit Clonality: Polyclonal

Application: WB 1:500-1:2000 IHC 1:50-1:200 IF/ICC 1:100-1:500

Reactivity: Human, Mouse, Rat

Purification: The Ab is from purified rabbit serum by affinity purification

via sequential chromatography on phospho- and non-

phospho-peptide affinity columns.

Specificity: Phospho-mTOR (Ser2481) Ab detects endogenous levels of

mTOR only when phosphorylated at Serine 2481.

Immunogen: A synthesized peptide derived from human mTOR around

the phosphorylation site of Serine 2481.

Uniprot: P42345

Description: an atypical kinase belonging to the PIKK family of kinases.

Controls cell growth through protein synthesis regulation. Downstream of PI3K/Akt pathway and required for cell survival. Acts as the target for the cell-cycle arrest and immunosuppressive effects of the FKBP12-rapamycin

complex.

Subcellular Location: Endoplasmic reticulum membrane. Golgi apparatus

membrane. Mitochondrion outer membrane. Lysosome. Cytoplasm. Nucleus > PML body. Shuttles between cytoplasm and nucleus. Accumulates in the nucleus in response to hypoxia (By similarity). Targeting to lysosomes depends on amino acid availability and RRAGA and RRAGB.

Tissue Specificity: Expressed in numerous tissues, with highest levels in testis.

Similarity: The kinase domain (PI3K/PI4K) is intrinsically active but has

a highly restricted catalytic center. The FAT domain forms three discontinuous subdomains of alpha-helical TPR repeats plus a single subdomain of HEAT repeats. The four domains pack sequentially to form a C-shaped a-solenoid that clamps onto the kinase domain (PubMed:23636326). Belongs to the

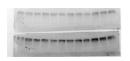
PI3/PI4-kinase family.

Storage Condition and

Buffer:

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at -20

°C.Stable for 12 months from date of receipt.



This image is a courtesy of anonymous review.



Western blot analysis of mTOR phosphorylation expression in HeLa whole cell lysates,The lane on the left is treated with the antigen-specific peptide.



AF3309 at 1/100 staining human brain tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the Ab for 1.5 hours at  $36^{\circ}$ C.



AF3309 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100,then blocked in 10% serum for 45 minutes at 25°C. The primary Ab was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab(Cat.# S0006), diluted at 1/600, was used as secondary Ab.

<code>IMPORTANT:</code> For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1% TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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