[KD Validated] Anti-MTOR Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R021073

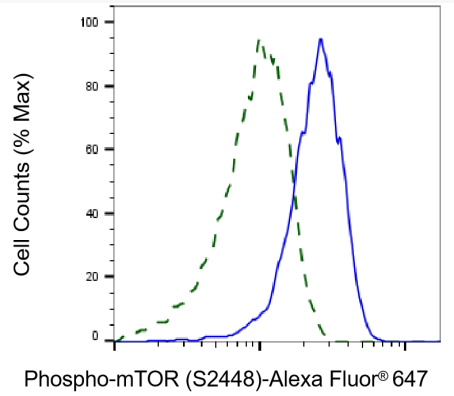
Product Information

Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	77C89N02
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Phospho-mTOR (S2448)
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-MTOR Rabbit mAb [77C89N02] is for research use only and not for use in diagnostic or therapeutic procedures.

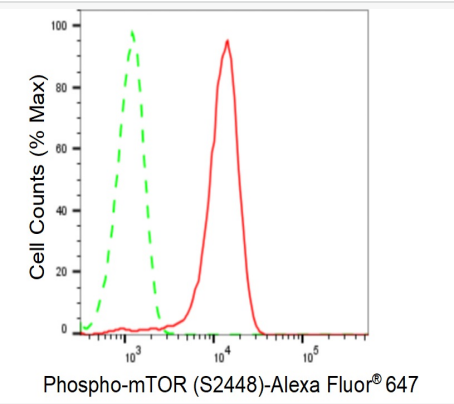
Protein Information

Synonyms	Mechanistic Target Of Rapamycin Kinase; RAFT1; RAPT1; Rapamycin And FKBP12 Target 1; Mammalian Target Of Rapamycin; FRAP1; FRAP2; FRAP; FK506-Binding Protein 12-Rapamycin Complex-Associated Protein 1; Mechanistic Target Of Rapamycin (Serine/Threonine Kinase); FK506 Binding Protein 12-Rapamycin Associated Protein 2; FKBP12-Rapamycin Complex-Associated Protein 1; Serine/Threonine-Protein Kinase MTOR; Rapamycin Associated Protein FRAP2; FKBP-Rapamycin Associated Protein; Mechanistic Target Of Rapamycin; Rapamycin Target Protein 1; FLJ44809; DJ576K7.1 (FK506 Binding Protein 12-Rapamycin Associated Protein 1); FK506 Binding Protein 12-Rapamycin Associated Protein 1; FKBP12-Rapamycin Complex-Associated Protein; Rapamycin Target Protein; EC 2.7.11.1; MTOR; SKS.
Calculated MW	Calculated MW: 289 kDa, Observed MW: 289 kDa
Uniprot ID	P42345
Gene ID	2475
Background	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.

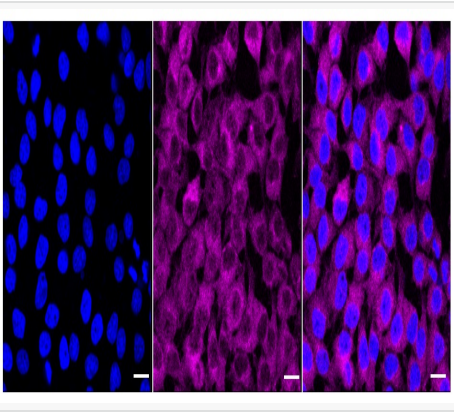
Validation Images



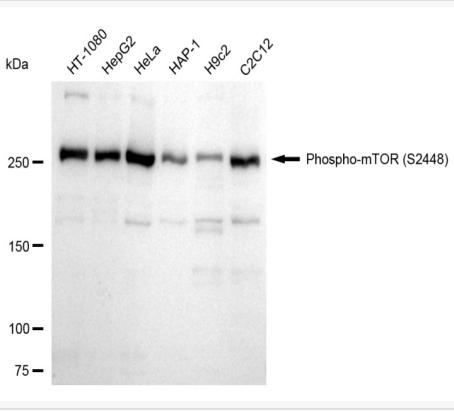
Validation of mTOR knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Phospho-mTOR (S2448) antibody (R021073, 1:2,000) and analyzed using BD flow cytometer.



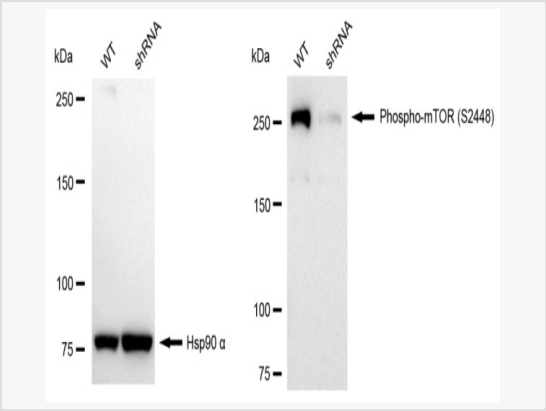
Flow cytometric analysis of Phospho-mTOR (S2448) expression in HeLa cells using Phospho-mTOR (S2448) antibody (R021073, 1:2,000). Green, isotype control; red, Phospho-mTOR (S2448).



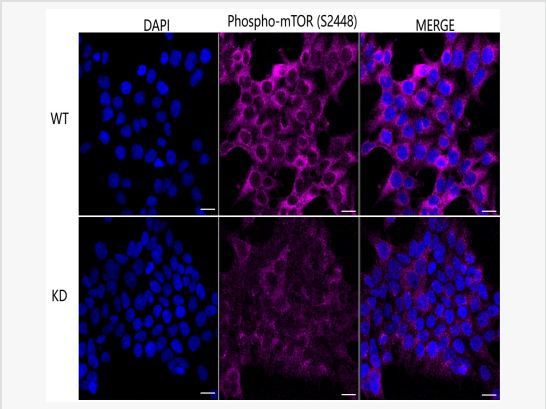
Immunocytochemical staining of HeLa cells with Phospho-mTOR (S2448) antibody (R021073, 1:1,000). Nuclei were stained blue with DAPI; Phospho-mTOR (S2448) was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Western blotting analysis using Phospho-mTOR (S2448) antibody (R021073). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Phospho-mTOR (S2448) antibody (R021073, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Phospho-mTOR (S2448) antibody (R021073). Phospho-mTOR (S2448) expression in wild type (WT) and Phospho-mTOR (S2448) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with Phospho-mTOR (S2448) antibody (R021073, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Immunocytochemical staining of HeLa cells using Phospho-mTOR (S2448) antibody (R021073, 1:1,000), Top panel: wild-type (WT); Bottom panal: Phospho-mTOR (S2448) shRNA knockdown (KD). Nuclei were stained blue with DAPI; Phospho-mTOR (S2448) was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm.