

[KD Validated] Anti-MTOR Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

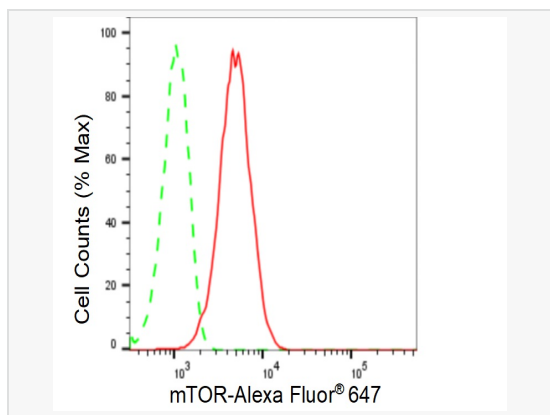
Catalog # R021085

Product Information

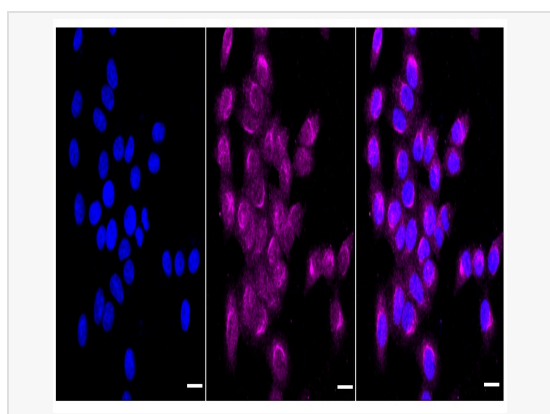
Application	WB, FC, IF (Cell)/ICC
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000
Host	Rabbit
Clonality	Monoclonal
Clone No.	90Q34D27
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human mTOR
Format	Affinity purified monoclonal 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 [90Q34D27] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

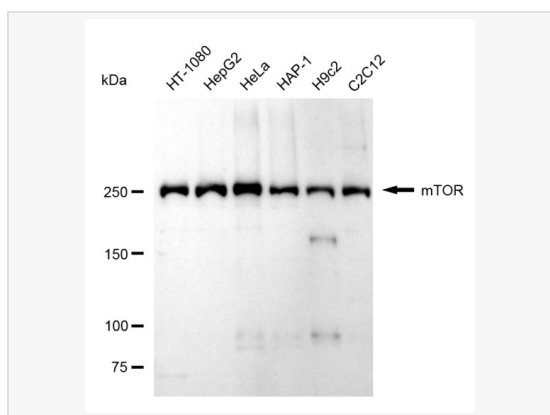
Synonyms	Mechanistic Target Of Rapamycin Kinase; RAFT1; RAPT1; Rapamycin And FKBP12 Target 1; Mammalian Target Of Rapamycin; FRAP1; FRAP2; FRAP; FK506-Binding Protein 12-Rapamycin Complex-Associated Protein 1; Mechanistic Target Of Rapamycin (Serine/Threonine Kinase); FK506 Binding Protein 12-Rapamycin 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: 255 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.



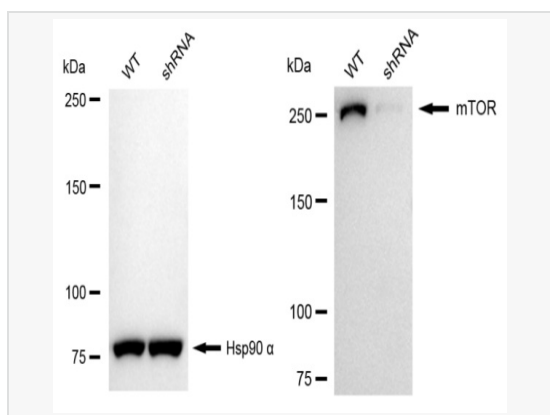
Flow cytometric analysis of mTOR expression in HepG2 cells using mTOR antibody (R021085, 1:2,000). Green, isotype control; red, mTOR.



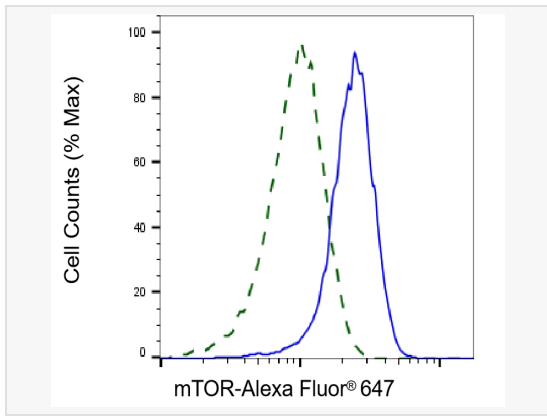
Immunocytochemical staining of HepG2 cells with mTOR antibody (R021085, 1:1,000). Nuclei were stained blue with DAPI; mTOR was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Western blotting analysis using mTOR antibody (R021085). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with mTOR antibody (R021085, 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 mTOR antibody (R021085). mTOR expression in wild type (WT) and mTOR shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with mTOR antibody (R021085, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Validation of mTOR knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with mTOR antibody (R021085, 1:2,000) and analyzed using BD flow cytometer.