

Human/Mouse RPTOR Antibody

Monoclonal Mouse IgG_{2B} Clone # 514208

Catalog Number: MAB5957

DESCRIPTION			
Species Reactivity	Human/Mouse		
Specificity	Detects human and mouse RPTOR in Western blots.		
Source	Monoclonal Mouse IgG _{2B} Clone # 514208		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant human RPTOR Lys77-Gln230 Accession # Q8N122		
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.		

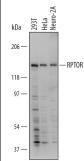
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

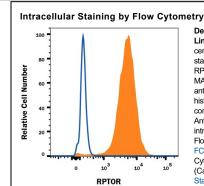
	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

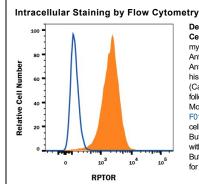
Western Blot



Detection of Human and Mouse RPTOR by Western Blot. Western blot shows lysates of 293T human embryonic kidney cell line, HeLa human cervical epithelial carcinoma cell line, and Neuro-2A mouse neuroblastoma cell line. PVDF Membrane was probed with 1 μg/mL of Human/Mouse RPTOR Monoclonal Antibody (Catalog # MAB5957) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for RPTOR at approximately 150 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.



Detection of RPTOR in HeLa Human Cell Line by Flow Cytometry. HeLa human cervical epithelial carcinoma cell line was stained with Mouse Anti-Human/Mouse RPTOR Monoclonal Antibody (Catalog # MAB5957, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Phycoerythrinconjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for Staining Intracellular Molecules



Detection of RPTOR in C2C12 Mouse
Cell Line by Flow Cytometry. C2C12 mouse
myoblast cell line was stained with Mouse
Anti-Human/Mouse RPTOR Monoclonal
Antibody (Catalog # MAB5957, filled
histogram) or isotype control antibody
(Catalog # MAB0041, open histogram),
followed by Phycoerythrin-conjugated AntiMouse IgG Secondary Antibody (Catalog #
F0102B). To facilitate intracellular staining,
cells were fixed with Flow Cytometry Fixation
Buffer (Catalog # FC004) and permeabilized
with Flow Cytometry Permeabilization/Wash
Buffer I (Catalog # FC005). View our protocol
for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 0.5 mg/mL in sterile PBS.

Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

RPTOR (Raptor) is a 150 kDa component of the cytosolic mammalian target of Rapamycin complex 1 (mTORC1) which also contains mTOR and GBL proteins. mTORC1 plays a dominant role in cell cycle regulation in response to metabolic conditions. The interaction of RPTOR with the kinase mTOR is stabilized under conditions of nutrient deprivation and energy stress, leading to inhibition of mTOR and cell cycle arrest. RPTOR contains multiple Ser and Thr residues whose phosphorylation regulates the activation status of mTOR. RPTOR is critical for the response of skeletal muscle and adipose tissue to insulin. It contains three RNC blocks (aa 48-511), three HEAT repeats (aa 550-667), and seven C-terminal WD40 domains (aa 1020-1335). Within aa 77-230, human RPTOR shares 100% aa sequence identity with mouse and rat RPTOR.

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