Anti-Raptor Mouse mAb

Purified Recombinant Mouse Monoclonal Antibody

Catalog # M014383

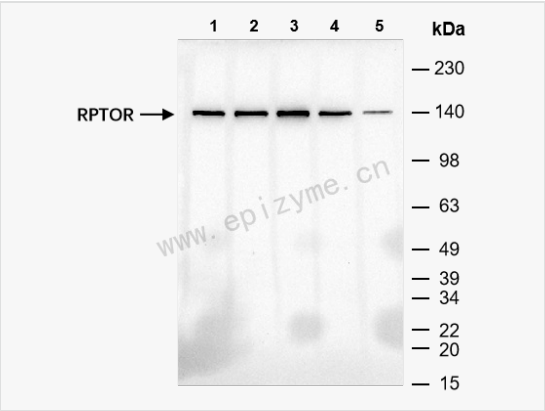
Product Information

Application	WB, ELISA
Reactivity	Human
Dilution	WB 1:1,000~1:2,000
Host	Mouse
Clonality	Monoclonal
Clone No.	11I28K70
Isotype	IgG
Label	Unconjugated
Immunogen	Recombinant protein of human Raptor
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-Raptor Mouse mAb [11I28K70] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	KIAA1303, KOG1, Mip1, P150 target of rapamycin (TOR) scaffold protein, p150 target of rapamycin (TOR) scaffold protein containing WD repeats, P150 target of rapamycin (TOR)-scaffold protein, Raptor, Regulatory associated protein of mTOR, Regulatory associated protein of MTOR complex 1, Regulatory-associated protein of mTOR, RPTOR, RPTOR_HUMAN.
Calculated MW	Calculated MW: 149 kDa; Observed MW: 140 kDa
Uniprot ID	Q8N122
Gene ID	57521
Background	Involved in the control of the mammalian target of rapamycin complex 1 (mTORC1) activity which regulates cell growth and survival, and autophagy in response to nutrient and hormonal signals; functions as a scaffold for recruiting mTORC1 substrates. mTORC1 is activated in response to growth factors or amino acids. Growth factor-stimulated mTORC1 activation involves a AKT1- mediated phosphorylation of TSC1-TSC2, which leads to the activation of the RHEB GTPase that potently activates the protein kinase activity of mTORC1. Amino acid-signaling to mTORC1 requires its relocalization to the lysosomes mediated by the Ragulator complex and the Rag GTPases. Activated mTORC1 up-regulates protein synthesis by phosphorylating key regulators of mRNA translation and ribosome synthesis. mTORC1 phosphorylates EIF4EBP1 and releases it from inhibiting the elongation initiation factor 4E (eiF4E). mTORC1 phosphorylates and activates S6K1 at 'Thr-389', which then promotes protein synthesis by phosphorylating PDCD4 and targeting it for degradation. Involved in ciliogenesis.
Cellular Location	Cytoplasm. Lysosome. Targeting to lysosomes depends on amino acid availability.
Tissue Location	Highly expressed in skeletal muscle, and in a lesser extent in brain, lung, small intestine, kidney and placenta.

Validation Images



Western Blot - Anti-Raptor Mouse mAb [11I28K70]
All lanes: M014383 at 1:1,000 dilution
Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
Lane 2: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
Lane 3: HCT116 (Human colorectal carcinoma epithelial cell) whole cell lysates
Lane 4: A431 (Human epidermoid teratoma cell line) whole cell lysates
Lane 5: T24 (Human bladder cancer epithelial cell) whole cell lysates
Lysates/proteins at 10 µg per lane.
Secondary antibody: Goat Anti-Mouse IgG(H+L), HRP Conjugated (Cat. No. LF101) at 1:5,000 dilution
Predicted band size: 149 kDa
Observed band size: 140 kDa
Developed using the ECL technique (Cat. No. SQ201).