



Datasheet for ABIN4913788

anti-Raptor antibody



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2 Images

Overview

Quantity:	100 µL
Target:	Raptor (RPTOR)
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Raptor antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This RPTOR antibody is generated from a mouse immunized with recombinant protein.
Clone:	14C4
Isotype:	IgG1
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein G.

Target Details

Target:	Raptor (RPTOR)
Alternative Name:	RPTOR (RPTOR Products)
Background:	Synonyms: KOG1, Mip1, Regulatory-associated protein of mTOR, Raptor, p150 target of rapamycin (TOR)-scaffold protein, RPTOR, KIAA1303

Target Details

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.

Gene ID: 57521

UniProt: [Q8N122](#)

Pathways: [PI3K-Akt Signaling](#), [RTK Signaling](#), [AMPK Signaling](#), [Regulation of Muscle Cell Differentiation](#), [Regulation of Cell Size](#), [Skeletal Muscle Fiber Development](#), [Autophagy](#), [BCR Signaling](#), [Warburg Effect](#)

Application Details

Application Notes: WB 1:300-5000
IHC-P 1:200-400

Restrictions: For Research Use only

Handling

Format: Liquid

Concentration: 0.5 µg/µL

Buffer: 0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

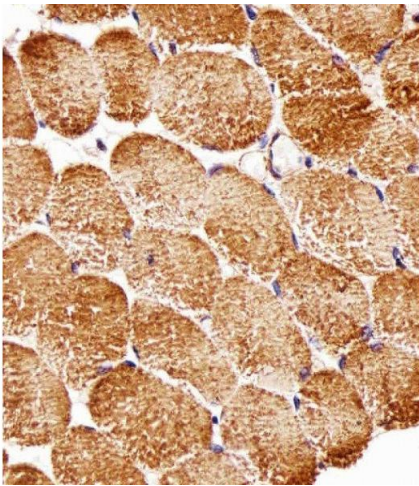
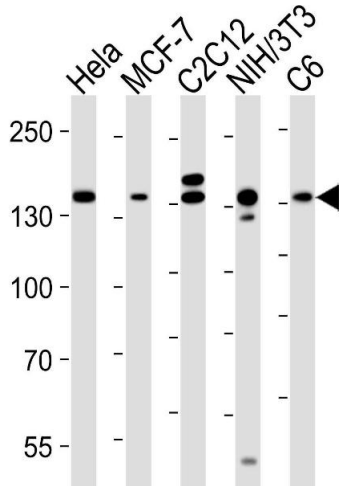
Storage: 4 °C,-20 °C

Handling

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

Images



Western Blotting

Image 1. Lane 1: HeLa Cell lysates, Lane 2: MCF-7 Cell lysates, Lane 3: C2C12 Cell lysates, Lane 4: NIH/3T3 Cell lysates, Lane 5: C6 Cell lysates, probed with RPTOR (1411CT316.2.151.34) Monoclonal Antibody, unconjugated (bsm-51285M) at 1:1000 overnight at 4°C followed by a conjugated secondary antibody for 60 minutes at 37°C.

Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Paraformaldehyde-fixed, paraffin embedded human skeletal muscle tissue, Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min, Block endogenous peroxidase by 3% hydrogen peroxide for 15 minutes, Blocking buffer (3% BSA) at room temperature for 30min, Antibody incubation with RPTOR (1411CT316.2.151.34) Monoclonal Antibody (bsm-51285M) at 1:25 for 1 hour at 37°C, followed by a conjugated secondary antibody for 20 minutes and DAB staining.