

Mouse RPTOR Monoclonal Antibody | anti-RPTOR antibody

RPTOR Antibody

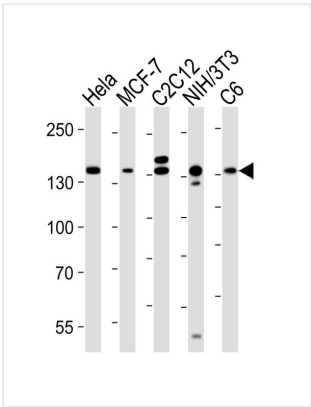
CATALOG # AAA283555	HOST Mouse	REACTIVITY Human, Mouse, Rat	APPLICATIONS Western Blot, Immunohistochemistry, ELISA
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PRODUCT SYNONYMS

RPTOR; Monoclonal Antibody; RPTOR Antibody; Regulatory-associated protein of mTOR; Raptor; p150 target of rapamycin (TOR)-scaffold protein; KIAA1303; RAPTOR; anti-RPTOR antibody

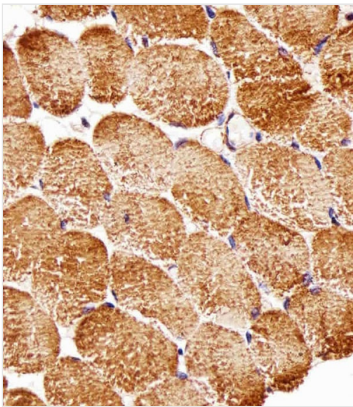
PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	1411CT316.2.151.34
Specificity	This RPTOR antibody is generated from a mouse immunized with recombinant protein.
Purity/Purification	Purified Mouse Monoclonal Antibody (Mab)
Form/Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Sequence Positions	1005-1329
Applicable Applications for anti-RPTOR antibody	WB (Western Blot), IHC (Immunohistochemistry), ELISA
Function	Involved in the control of the mammalian target of rapamycin complex 1 (mTORC1) activity which regulates cell growth and survival, and autophagy in response tonutrient and hormonal signals; functions as ascaffold 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 relocation 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 inciliogenesis
Cellular Location	Cytoplasm. Lysosome. Cytoplasmic granule. Note=Targeting to lysosomes depends onamino acid availability. In arsenite-stressed cells, accumulates in stress granules when associated with SPAG5 and association with lysosomes is drastically decreased
Tissue Location	Highly expressed in skeletal muscle, and in alessor extent in brain, lung, small intestine,kidney and placenta Isoform 3 is widely expressed, with highest levels in nasalmucosa and pituitary and lowest in spleen
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.



WB (Western Blot)

Western blot analysis of lysates from HeLa, MCF-7, mouse C2C12, mouse NIH/3T3, rat C6 cell line (from left to right), using RPTOR Antibody. AAA283555 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.



IHC (Immunohistochemistry)

Immunohistochemical analysis of paraffin-embedded H. skeletal muscle section using RPTOR Antibody. AAA283555 was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

ADDITIONAL INFORMATION

Related Product Information for anti-RPTOR antibody	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 potentially 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.
Product Categories/Family for anti-RPTOR antibody	Crown Antibodies; Cell Biology; Signal Transduction
References	Kim D.-H.,et al.Cell 110:163-175(2002). Hara K.,et al.Cell 110:177-189(2002). Zody M.C.,et al.Nature 440:1045-1049(2006). Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Nagase T.,et al.DNA Res. 7:65-73(2000).

NCBI AND UNIPROT INFORMATION

NCBI GI #	251823858
NCBI GeneID	57521
NCBI Accession #	NP_001156506.1
NCBI GenBank Nucleotide #	NM_001163034.1
UniProt Accession #	Q8N122; Q8N4V9; Q8TB32; Q9P2P3; B2RN36; C6KEF2; F5H7J5
Molecular Weight	149038
NCBI Official Full Name	regulatory-associated protein of mTOR isoform 2
NCBI Official Synonym Full Names	regulatory associated protein of MTOR, complex 1
NCBI Official Symbol	RPTOR
NCBI Official Synonym Symbols	KOG1; Mip1

NCBI Protein Information	regulatory-associated protein of mTOR
UniProt Protein Name	Regulatory-associated protein of mTOR
UniProt Gene Name	RPTOR
UniProt Synonym Gene Names	KIAA1303; RAPTOR; Raptor
UniProt Entry Name	RPTOR_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/rptor-antibody-clone-1411ct316-2-151-34-western-blot-immunohistochemistry-elisa/283555>