

ARG58914 anti-Raptor antibody [1411CT316.2.151.34]

Package: 100 µl
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes Raptor
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Mouse
Clonality	Monoclonal
Clone	1411CT316.2.151.34
Isotype	IgG1, kappa
Target Name	Raptor
Species	Human
Immunogen	Recombinant protein corresponding to aa. 1005-1329 of Human Raptor.
Conjugation	Un-conjugated
Alternate Names	Regulatory-associated protein of mTOR; p150 target of rapamycin; TOR; KOG1; Mip1; Raptor

Application Instructions

Application table	Application	Dilution
	IHC-P	1:25
	WB	1:500 - 1:1000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa	

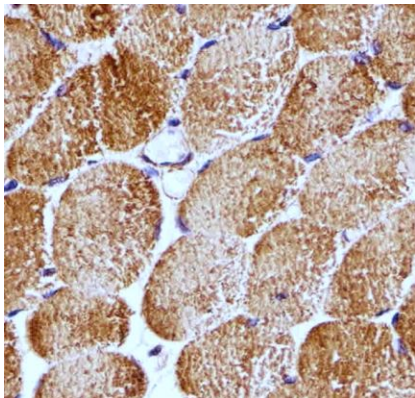
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	RPTOR
Gene Full Name	regulatory associated protein of MTOR, complex 1
Background	This gene encodes a component of a signaling pathway that regulates cell growth in response to nutrient and insulin levels. The encoded protein forms a stoichiometric complex with the mTOR kinase, and also associates with eukaryotic initiation factor 4E-binding protein-1 and ribosomal protein S6 kinase. The protein positively regulates the downstream effector ribosomal protein S6 kinase, and negatively regulates the mTOR kinase. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2009]
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 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. [UniProt]
Calculated Mw	149 kDa
PTM	Insulin-stimulated phosphorylation at Ser-863 by MTOR and MAPK8 up-regulates mTORC1 activity. Osmotic stress also induces phosphorylation at Ser-696, Thr-706 and Ser-863 by MAPK8. Ser-863 phosphorylation is required for phosphorylation at Ser-855 and Ser-859. In response to nutrient limitation, phosphorylated by AMPK; phosphorylation promotes interaction with 14-3-3 proteins, leading to negative regulation of the mTORC1 complex. In response to growth factors, phosphorylated at Ser-719, Ser-721 and Ser-722 by RPS6KA1, which stimulates mTORC1 activity. [UniProt]
Cellular Localization	Cytoplasm. Lysosome. Cytoplasmic granule. Note=Targeting to lysosomes depends on amino acid availability. In arsenite-stressed cells, accumulates in stress granules when associated with SPAG5 and association with lysosomes is drastically decreased. [UniProt]

Images



ARG58914 anti-Raptor antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human skeletal muscle tissue stained with ARG58914 anti-Raptor antibody at 1:25 dilution.

ARG58914 anti-Raptor antibody WB image

Western blot: 20 µg of HeLa cell lysate stained with ARG58914 anti-Raptor antibody at 1:1000 dilution.

