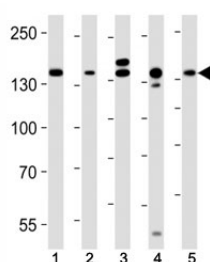


Raptor Antibody [clone 1411CT316.2.151.34] (F52807)

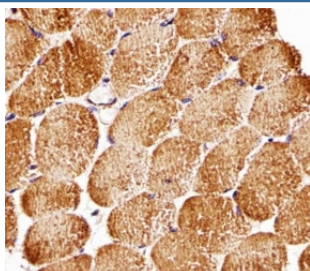
Catalog No.	Formulation	Size
F52807-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52807-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

[Bulk quote request](#)

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, k
Clone Name	1411CT316.2.151.34
Purity	Purified
UniProt	Q8N122
Applications	IHC (Paraffin) : 1:25 Western Blot : 1:500-1:1000
Limitations	This Raptor antibody is available for research use only.



Western blot analysis of lysate from (1) HeLa, (2) MCF-7, (3) mouse C2C12, (4) mouse NIH3T3, (5) rat C6 cell line using Raptor antibody at 1:1000. Predicted molecular weight ~ 149 kDa.



Immunohistochemical analysis of paraffin-embedded human skeletal muscle using Raptor antibody at 1:25 dilution.

Description

Raptor is 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]

Application Notes

Titration of the RAPTOR antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Raptor antibody was produced from a mouse immunized with recombinant protein.

Storage

Aliquot the Raptor antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.