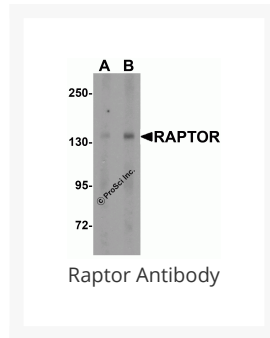




Raptor Antibody

Cat. No.: 3491



Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Human, Mouse
IMMUNOGEN:	Raptor polyclonal antibody was raised against a 13 amino acid synthetic peptide from near the amino-terminus of human Raptor. The immunogen is located within amino acids 90 - 140 of Raptor.
TESTED APPLICATIONS:	ELISA, ICC, IF, WB

APPLICATIONS:	Raptor antibody can be used for the detection of Raptor by Western blot at 2 and 4 µg/mL. Antibody can also be used for immunocytochemistry starting at 10 µg/mL. For immunofluorescence start at 10 µg/mL. Antibody validated: Western Blot in mouse samples; Immunocytochemistry in mouse samples and Immunofluorescence in mouse samples. All other applications and species not yet tested.
SPECIFICITY:	Raptor has multiple isoforms that may also be recognized by antibody.
POSITIVE CONTROL:	1) Cat. No. 1284 - L1210 Cell Lysate
	2) Cat. No. 17-204 - L1210 Cell Slide

Ψ Properties

PURIFICATION:	Raptor Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	Raptor Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	Raptor antibody can be stored at 4 °C for three months and -20 °C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Ψ Additional Info

OFFICIAL SYMBOL:	Rptor
ALTERNATE NAMES:	Raptor Antibody: Rap, Raptor, mKIAA1303, 4932417H02Rik, Regulatory-associated protein of mTOR
ACCESSION NO.:	Q8K4Q0
PROTEIN GI NO.:	46577497
GENE ID:	74370
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Ψ Background and References

BACKGROUND:	Raptor Antibody: The mammalian Target of Rapamycin (TOR, also known as mTOR) is an evolutionarily conserved serine/threonine kinase that regulates cell growth and cell cycle through its ability to integrate signals from nutrient levels and growth factors. Rapamycin inhibits TOR activity resulting in reduced cell growth and reduced rates of cell cycle and cell proliferation. Raptor (regulatory associated protein of TOR) is a TOR-binding protein essential for TOR signaling in vivo. It acts as a TOR scaffold protein whose binding by TOR substrates is necessary for effective TOR-catalyzed phosphorylation. These substrates include the ribosomal protein S6 kinase (RP S6K) and the eukaryotic initiation factor 4E binding protein 4EBP1, proteins necessary for cell growth and proliferation and responsive to nutrient and mitogen levels. Raptor binds these proteins through a common 5 amino acid TOR-signaling (TOS) motif; mutation of this motif prevents the TOR-dependent phosphorylation of these proteins.
REFERENCES:	1) Shamji AF, Ngheim P, and Schreiber SL. Integration of growth factor and nutrient signaling: implications for cancer biology. <i>Mol. Cell</i> 2003; 12:271-80.
	2) Fingar DC and Blenis J. Target of rapamycin (TOR): an integrator of nutrient and growth factor signals and coordinator of cell growth and cell cycle progression. <i>Oncogene</i> 2004; 23:3151-71.
	3) Yonezawa K, Tokunaga C, Oshiro N, et al. Raptor, a binding partner of target of rapamycin. <i>Biochem. Biophys. Res. Commun.</i> 2004; 313:437-441.
	4) Hara K, Yonezawa K, Weng QP, et al. Amino acid sufficiency and mTOR regulate p70 S6 kinase and eIF-4E BP1 through a common effector mechanism. <i>J. Biol. Chem.</i> 1998; 273:14484-94.

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