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Raptor (CT) Antibody

CATALOG NO.: 3489

BACKGROUND:

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 (reviewed in 1). Rapamycin inhibits TOR activity resulting in reduced cell growth and reduced rates of cell cycle and cell proliferation (reviewed in 2). 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 (3). 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 (4). 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 (5).

SOURCE:

Raptor (CT) polyclonal antibody was raised against a 16 amino acid peptide from near the carboxy-terminus of mouse Raptor (Genbank accession No. Q8K4Q0).

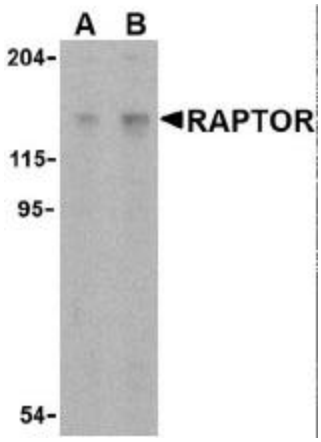
APPLICATION:

Raptor (CT) antibody can be used for the detection of Raptor by Western blot at 2 µg/ml. L1210 cell lysate can be used as positive control. Anti-Raptor (CT) is mouse specific. Raptor has multiple isoforms that may also be recognized by this antibody.

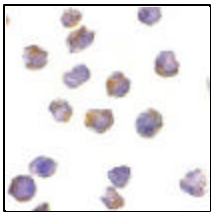
This product is for research use only.

STORAGE:

Raptor (CT) antibody is supplied as immunoaffinity purified IgG, 100 µg in 100 µl of PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of Raptor in L1210 cell lysate with Raptor (CT) antibody at (A) 2 and (B) 4 µg/ml.



Immunocytochemistry of Raptor in L1210 cells with Raptor antibody at 10 µg/ml.

RELATED PRODUCTS:

Blocking peptide, Catalog No. **3489P.**
L1210 Cell Lysate, Catalog No. **1284.**
TOR (NT) Antibody, Catalog No. **3485.**
RPS6K Antibody, Catalog No. **3511.**
4EBP1 Antibody, Catalog No. **3513.**

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3. Yonezawa K, Tokunaga C, Oshiro N, et al. Raptor, a binding partner of target of rapamycin. *Biochem. Biophys. Res. Commun.* 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. *J. Biol. Chem.* 1998; 273:14484-94.

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