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DEPTOR Rabbit pAb

Catalog # AP97491

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q8TB45
Other Accession	Q8TB45
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	46294
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human DEPTOR/DEPDC6
Epitope Specificity	56-170/409
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 2 DEP domains. Contains 1 PDZ (DHR) domain.
SUBUNIT	Part of the mammalian target of rapamycin complex 1 (mTORC1) which contains MTOR, MLST8, RPTOR, AKT1S1/PRAS40 and DEPTOR. Part of the mammalian target of rapamycin complex 2 (mTORC2) which contains MTOR, MLST8, PROTOR1, RICTOR, MAPKAP1 and DEPTOR. Interacts (via PDZ domain) with MTOR; interacts with MTOR within both mammalian target of rapamycin complexes mTORC1 and mTORC2.
Post-translational modifications	Phosphorylated. Phosphorylation weakens interaction with MTOR within mTORC1 and mTORC2.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	DEPTOR (DEP domain containing MTOR-interacting protein), also known as DEP.6 or DEPDC6 (DEP domain-containing protein 6), is a 409 amino acid protein that negatively regulates mTORC1 and mTORC2 pathways. DEPTOR interacts with FRAP via its PDZ domain, and undergoes post-translational phosphorylation. Containing two DEP domains and one PDZ (DHR) domain, DEPTOR is encoded by a gene that maps to human chromosome 8q24.12. Chromosome 8 consists of nearly 146 million base pairs, encodes over 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, Trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

Additional Information

Gene ID	64798

Other Names	DEP.6; DEPDC6; hDEPTOR; RGD1561030; DPTOR_HUMAN; DEPTOR; DEP domain-containing protein 6; DPTOR_MOUSE; Kiaa4200; DEP domain containing MTOR interacting protein; DEP domain containing 6
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DEPTOR {ECO:0000303|PubMed:19446321, ECO:0000312|HGNC:HGNC:22953}
Function	Negative regulator of the mTORC1 and mTORC2 complexes: inhibits the protein kinase activity of MTOR, thereby inactivating both complexes (PubMed:19446321, PubMed:22017875, PubMed:22017876, PubMed:22017877, PubMed:25936805, PubMed:29382726, PubMed:34519268, PubMed:34519269). DEPTOR inhibits mTORC1 and mTORC2 to induce autophagy (PubMed:22017875, PubMed:22017876, PubMed:22017877). In contrast to AKT1S1/PRAS40, only partially inhibits mTORC1 activity (PubMed:34519268, PubMed:34519269).
Cellular Location	Lysosome membrane. Note=Localizes to the lysosomal membrane when associated with the mTORC1 and mTORC2 complexes.

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