

DEPTOR (A-3): sc-398169

BACKGROUND

DEPTOR (DEP domain containing MTOR-interacting protein), also known as DEP6 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.

CHROMOSOMAL LOCATION

Genetic locus: DEPTOR (human) mapping to 8q24.12; Deptor (mouse) mapping to 15 D1.

SOURCE

DEPTOR (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 18-37 near the N-terminus of DEPTOR of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DEPTOR (A-3) is available conjugated to agarose (sc-398169 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398169 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398169 PE), fluorescein (sc-398169 FITC), Alexa Fluor® 488 (sc-398169 AF488), Alexa Fluor® 546 (sc-398169 AF546), Alexa Fluor® 594 (sc-398169 AF594) or Alexa Fluor® 647 (sc-398169 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398169 AF680) or Alexa Fluor® 790 (sc-398169 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398169 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DEPTOR (A-3) is recommended for detection of DEPTOR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DEPTOR siRNA (h): sc-77660, DEPTOR siRNA (m): sc-143009, DEPTOR shRNA Plasmid (h): sc-77660-SH, DEPTOR shRNA Plasmid (m): sc-143009-SH, DEPTOR shRNA (h) Lentiviral Particles: sc-77660-V and DEPTOR shRNA (m) Lentiviral Particles: sc-143009-V.

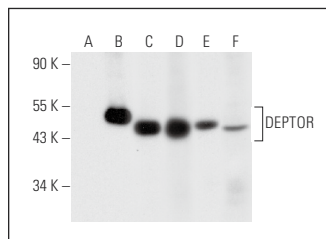
Molecular Weight of DEPTOR: 48 kDa.

Positive Controls: DEPTOR (h4): 293T Lysate: sc-128441.

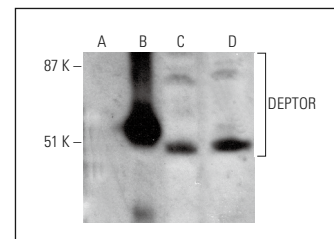
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



DEPTOR (A-3): sc-398169. Western blot analysis of DEPTOR expression in non-transfected 293T: sc-117752 (A), human DEPTOR transfected 293T: sc-128441 (B), Ramos (C), U266 (D), MCF7 (E) and COLO 320DM (F) whole cell lysates.



DEPTOR (A-3) HRP: sc-398169 HRP. Direct western blot analysis of DEPTOR expression in non-transfected 293T: sc-117752 (A), human DEPTOR transfected 293T: sc-128441 (B), Ramos (C) and NCI-H1299 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Catena, V., et al. 2016. DEPTOR transcriptionally regulates endoplasmic reticulum homeostasis in multiple myeloma cells. *Oncotarget* 7: 70546-70558.
2. Ding, Y., et al. 2018. DEPTOR deficiency-mediated mTORC1 hyperactivation in vascular endothelial cells promotes angiogenesis. *Cell. Physiol. Biochem.* 46: 520-531.
3. Peng, Q., et al. 2019. Bone morphogenetic protein 4 (BMP4) alleviates hepatic steatosis by increasing hepatic lipid turnover and inhibiting the mTORC1 signaling axis in hepatocytes. *Aging* 11: 11520-11540.
4. Zhang, X.J., et al. 2020. Angiocrine Hgf signaling controls physiologic organ and body size and dynamic hepatocyte proliferation to prevent liver damage during regeneration. *Am. J. Pathol.* 190: 358-371.
5. Feng, G.J., et al. 2020. *Helicobacter pylori* promote inflammation and host defense through the CagA-dependent activation of mTORC1. *J. Cell. Physiol.* 35: 10094-10108.
6. Zhan, J.B., et al. 2021. Downregulation of miR-96-5p inhibits mTOR/NFκB signaling pathway via DEPTOR in allergic rhinitis. *Int. Arch. Allergy Immunol.* 182: 210-219.
7. Huang, J., et al. 2022. ZDHHC22-mediated mTOR palmitoylation restrains breast cancer growth and endocrine therapy resistance. *Int. J. Biol. Sci.* 18: 2833-2850.
8. Ouyang, Z., et al. 2022. DEPTOR exacerbates bone-fat imbalance in osteoporosis by transcriptionally modulating BMSC differentiation. *Biomed. Pharmacother.* 151: 113164.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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