

DEPTOR (D-2): sc-514609

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.

REFERENCES

1. Kashino, G., et al. 2001. Preferential expression of an intact WRN gene in Werner syndrome cell lines in which a normal chromosome 8 has been introduced. *Biochem. Biophys. Res. Commun.* 289: 111-115.
2. Selicorni, A., et al. 2002. Cytogenetic mapping of a novel locus for type II Waardenburg syndrome. *Hum. Genet.* 110: 64-67.
3. McQueen, M.B., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
4. Mossafa, H., et al. 2006. Non-Hodgkin's lymphomas with Burkitt-like cells are associated with c-Myc amplification and poor prognosis. *Leuk. Lymphoma* 47: 1885-1893.
5. Agrelo, R., et al. 2006. Epigenetic inactivation of the premature aging Werner syndrome gene in human cancer. *Proc. Natl. Acad. Sci. USA* 103: 8822-8827.
6. Peterson, T.R., et al. 2009. DEPTOR is an mTOR inhibitor frequently over-expressed in multiple myeloma cells and required for their survival. *Cell* 137: 873-886.
7. Wysocki, P.J. 2009. mTOR in renal cell cancer: modulator of tumor biology and therapeutic target. *Expert Rev. Mol. Diagn.* 9: 231-241.

CHROMOSOMAL LOCATION

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

SOURCE

DEPTOR (D-2) is a mouse monoclonal antibody raised against amino acids 1-50 mapping at 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.

RESEARCH USE

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

APPLICATIONS

DEPTOR (D-2) 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.

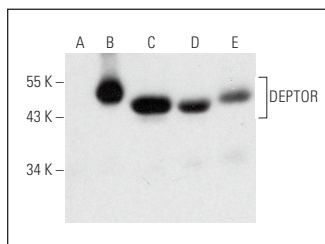
Molecular Weight of DEPTOR: 48 kDa.

Positive Controls: DEPTOR (h2): 293T Lysate: sc-128441, Ramos cell lysate: sc-2216 or MCF7 whole cell lysate: sc-2206.

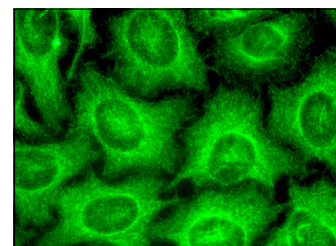
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DEPTOR (D-2): sc-514609. Western blot analysis of DEPTOR expression in non-transfected 293T: sc-117752 (A), human DEPTOR transfected 293T: sc-128441 (B), Ramos (C), U266 (D) and MCF7 (E) whole cell lysates.



DEPTOR (D-2): sc-514609. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.