DEPTOR (h4): 293T Lysate: sc-128441



The Power to Question

BACKGROUND

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.

REFERENCES

- 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.
- 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.
- Peterson, T.R., et al. 2009. DEPTOR is an mTOR inhibitor frequently overexpressed 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.

PRODUCT

DEPTOR (h4): 293T Lysate represents a lysate of human DEPTOR transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

DEPTOR (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive DEPTOR antibodies. Recommended use: 10-20 µl per lane.

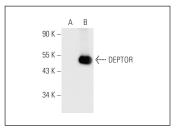
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

DEPTOR (A-3): sc-398169 is recommended as a positive control antibody for Western Blot analysis of enhanced human DEPTOR expression in DEPTOR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



DEPTOR (A-3): sc-398169. Western blot analysis of DEPTOR expression in non-transfected 293T: sc-117752 (A) and human DEPTOR transfected 293T: sc-128441 (B) whole cell lysates.

RESEARCH USE

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