

Edc4 (h): 293T Lysate: sc-116904

BACKGROUND

The major eukaryotic mRNA decay pathway occurs through deadenylation, decapping, and 5' to 3' degradation of the mRNA. Decapping is a critical control point in this decay pathway. Edc4 (enhancer of mRNA decapping 4), also known as human enhancer of decapping large subunit (HEDLS), RCD-8 or Ge-1, is a 1,401 amino acid protein belonging to the WD repeat EDC4 family that is involved in mRNA decapping during mRNA degradation. As part of the mRNA degradation process, Edc4 becomes part of a complex that also contains hDcp1a, hDcp2a, RCK and Edc3. Localizing to P-body and cytoplasm, Edc4 contains a nuclear localization sequence (NLS) which enables it to selectively enter the nucleus as well. Edc4 becomes phosphorylated upon DNA damage and exists as two alternatively spliced isoforms that are encoded by a gene that maps to human chromosome 16q22.1.

REFERENCES

1. Bloch, D.B., Rabkina, D., Quertermous, T. and Bloch, K.D. 1994. The immunoreactive region in a novel autoantigen contains a nuclear localization sequence. *Clin. Immunol. Immunopathol.* 72: 380-389.
2. Garcia-Lozano, J.R., Gonzalez-Escribano, M.F., Wichmann, I. and Nuñez-Roldan, A. 1997. Cytoplasmic detection of a novel protein containing a nuclear localization sequence by human autoantibodies. *Clin. Exp. Immunol.* 107: 501-506.
3. Lehner, B. and Sanderson, C.M. 2004. A protein interaction framework for human mRNA degradation. *Genome Res.* 14: 1315-1323.
4. Fenger-Grøn, M., Fillman, C., Norrild, B. and Lykke-Andersen, J. 2005. Multiple processing body factors and the ARE binding protein TTP activate mRNA decapping. *Mol. Cell* 20: 905-915.

CHROMOSOMAL LOCATION

Genetic locus: EDC4 (human) mapping to 16q22.1.

PRODUCT

Edc4 (h): 293T Lysate represents a lysate of human Edc4 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.

APPLICATIONS

Edc4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Edc4 antibodies. Recommended use: 10-20 µl per lane.

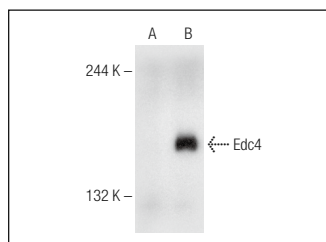
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Edc4 (F-1): sc-374211 is recommended as a positive control antibody for Western Blot analysis of enhanced human Edc4 expression in Edc4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

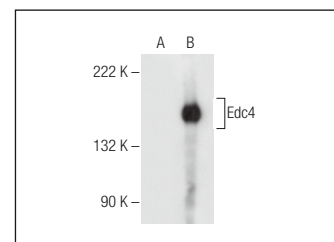
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-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.

DATA



Edc4 (F-1): sc-374211. Western blot analysis of Edc4 expression in non-transfected: sc-117752 (A) and human Edc4 transfected: sc-116904 (B) 293T whole cell lysates.



Edc4 (H-12): sc-376382. Western blot analysis of Edc4 expression in non-transfected: sc-117752 (A) and human Edc4 transfected: sc-116904 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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