

Edc4 (S-15): sc-137444

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

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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.
5. Beausoleil, S.A., Villén, J., Gerber, S.A., Rush, J. and Gygi, S.P. 2006. A probability-based approach for high-throughput protein phosphorylation analysis and site localization. *Nat. Biotechnol.* 24: 1285-1292.

CHROMOSOMAL LOCATION

Genetic locus: EDC4 (human) mapping to 16q22.1; Edc4 (mouse) mapping to 8 D3.

SOURCE

Edc4 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Edc4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-137444 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Edc4 (S-15) is recommended for detection of Edc4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with Edc3.

Edc4 (S-15) is also recommended for detection of Edc4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Edc4 siRNA (h): sc-93079, Edc4 siRNA (m): sc-143291, Edc4 shRNA Plasmid (h): sc-93079-SH, Edc4 shRNA Plasmid (m): sc-143291-SH, Edc4 shRNA (h) Lentiviral Particles: sc-93079-V and Edc4 shRNA (m) Lentiviral Particles: sc-143291-V.

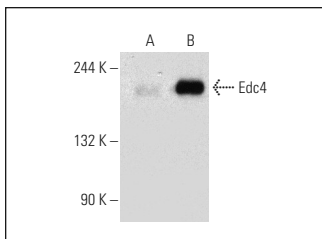
Molecular Weight of Edc4: 152 kDa.

Positive Controls: Edc4 (h): 293T Lysate: sc-116904.

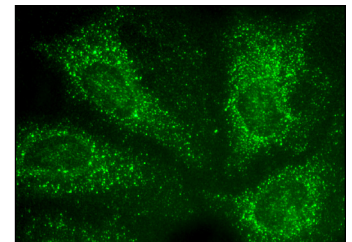
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Edc4 (S-15): sc-137444. Western blot analysis of Edc4 expression in non-transfected: sc-117752 (A) and human Edc4 transfected: sc-116904 (B) 293T whole cell lysates.



Edc4 (S-15): sc-137444. Immunofluorescence staining of methanol-fixed HeLa cells showing P-bodies, cytoplasmic & nuclear localization.

RESEARCH USE

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

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Try **Edc4 (H-12): sc-376382** or **Edc4 (F-1): sc-374211**, our highly recommended monoclonal alternatives to Edc4 (S-15).