SANTA CRUZ BIOTECHNOLOGY, INC.

EXOSC6 (N-13): sc-107536

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The exosome is a multisubunit complex composed of several highly conserved subunits, some of which are 3' to 5' exoribonucleases. The complex is involved in a variety of cellular processes and is responsible for degrading unstable mRNAs that contain AU-rich (ARE) elements in their untranslated 3' region. EXOSC6 (exosome component 6), also known as MTR3 (mRNA transport regulator 3 homolog) is a 272 amino acid exonuclease that is a component of the exosome complex and is required for processing of 7S pre-RNA to mature 5.8S rRNA. EXOSC6 belongs to the RNase PH family and localizes to the nucleolus. EXOSC1, EXOSC7 and EXOSC8 interact directly with EXOSC6 in the exosome multienzyme ribonuclease complex.

REFERENCES

1. Chen, C.Y., et al. 2001. AU binding proteins recruit the exosome to degrade ARE-containing mRNAs. Cell 107: 451-464.
2. Raijmakers, R., et al. 2002. Protein-protein interactions between human exosome components support the assembly of RNase PH-type subunits into a six-membered PNPase-like ring. J. Mol. Biol. 323: 653-663.
3. Lehner, B. and Sanderson, C.M. 2004. A protein interaction framework for human mRNA degradation. Genome Res. 14: 1315-1323.
4. Milligan, L., et al. 2005. A nuclear surveillance pathway for mRNAs with defective polyadenylation. Mol. Cell. Biol. 25: 9996-10004.
5. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 606490. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Liu, Q., et al. 2006. Reconstitution, activities, and structure of the eukaryotic RNA exosome. Cell 127: 1223-1237.

CHROMOSOMAL LOCATION

Genetic locus: EXOSC6 (human) mapping to 16q22.1; Exosc6 (mouse) mapping to 8 E1.

SOURCE

EXOSC6 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of EXOSC6 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-107536 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.

PROTOCOLS

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

APPLICATIONS

EXOSC6 (N-13) is recommended for detection of EXOSC6 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).

Suitable for use as control antibody for EXOSC6 siRNA (h): sc-93448, EXOSC6 siRNA (m): sc-144979, EXOSC6 shRNA Plasmid (h): sc-93448-SH, EXOSC6 shRNA Plasmid (m): sc-144979-SH, EXOSC6 shRNA (h) Lentiviral Particles: sc-93448-V and EXOSC6 shRNA (m) Lentiviral Particles: sc-144979-V.

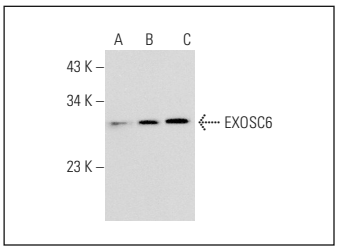
Molecular Weight of EXOSC6: 28 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or K-562 whole cell lysate: sc-2203.

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



EXOSC6 (N-13): sc-107536. Western blot analysis of EXOSC6 expression in HeLa (**A**), Jurkat (**B**) and K-562 (**C**) whole cell lysates.

RESEARCH USE

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