

EXOSC7 (A-1): sc-393686

BACKGROUND

The exosome is a multisubunit complex of 3' to 5' exoribonucleases. It is involved in a variety of cellular processes and is responsible for degrading unstable mRNAs that contain AU-rich elements in their untranslated 3' region. EXOSC7 (exosome component 7), also known as p8, EAP1, RRP42 (ribosomal RNA-processing protein 42), Rrp42p or hRrp42p, is a component of the exosome multienzyme ribonuclease complex. It belongs to the RNase PH family and localizes to the nucleolus. EXOSC7 is one of the six RNase-PH domain subunits of the exosome. Together, these six subunits form a PNPase-like ring. EXOSC7 is required for the processing of the 7S pre-RNA.

REFERENCES

1. Nagase, T., et al. 1995. Prediction of the coding sequences of unidentified human genes. III. The coding sequences of 40 new genes (K1AA0081-K1AA0120) deduced by analysis of cDNA clones from human cell line KG-1. *DNA Res.* 2: 37-43.
2. Chen, C.Y., et al. 2001. AU binding proteins recruit the exosome to degrade ARE-containing mRNAs. *Cell* 107: 451-464.
3. Raijmakers, R., et al. 2002. Protein-protein interactions of hCsl4p with other human exosome subunits. *J. Mol. Biol.* 315: 809-818.
4. Brouwer, R., et al. 2002. Autoantibodies directed to novel components of the PM/Scl complex, the human exosome. *Arthritis Res.* 4: 134-138.
5. 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.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606488. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: EXOSC7 (human) mapping to 3p21.31; *Exosc7* (mouse) mapping to 9 F4.

SOURCE

EXOSC7 (A-1) is a mouse monoclonal antibody raised against amino acids 133-291 mapping at the C-terminus of EXOSC7 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.

EXOSC7 (A-1) is available conjugated to agarose (sc-393686 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393686 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393686 PE), fluorescein (sc-393686 FITC), Alexa Fluor® 488 (sc-393686 AF488), Alexa Fluor® 546 (sc-393686 AF546), Alexa Fluor® 594 (sc-393686 AF594) or Alexa Fluor® 647 (sc-393686 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393686 AF680) or Alexa Fluor® 790 (sc-393686 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

EXOSC7 (A-1) is recommended for detection of EXOSC7 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 EXOSC7 siRNA (h): sc-77294, EXOSC7 siRNA (m): sc-77295, EXOSC7 shRNA Plasmid (h): sc-77294-SH, EXOSC7 shRNA Plasmid (m): sc-77295-SH, EXOSC7 shRNA (h) Lentiviral Particles: sc-77294-V and EXOSC7 shRNA (m) Lentiviral Particles: sc-77295-V.

Molecular Weight (predicted) of EXOSC7: 32 kDa.

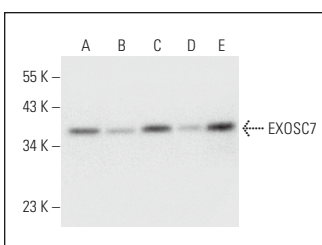
Molecular Weight (observed) of EXOSC7: 38 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or Caco-2 cell lysate: sc-2262.

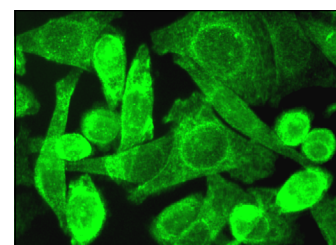
RECOMMENDED SUPPORT REAGENTS

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



EXOSC7 (A-1): sc-393686. Western blot analysis of EXOSC7 expression in Hep G2 (A), HeLa (B), Caco-2 (C), A-431 (D) and NCI-H460 (E) whole cell lysates.



EXOSC7 (A-1): sc-393686. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear and cytoplasmic localization.

STORAGE

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

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.