

## EXOSC3 (B-8): sc-166568



The Power to Question

## 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. EXOSC3 (exosome component 3), also known as p10, CGI-102, RRP40 (ribosomal RNA-processing protein 40), Rrp40p or hRrp40p, is a component of the exosome multienzyme ribonuclease complex. Localizing to the cytoplasm and nucleolus, EXOSC3 contains a putative S1 RNA-binding domain and is capable of binding RNA. EXOSC3 is a component of the top cap of the exosome and is essential for exosome stability. In addition, EXOSC3 is required for the processing of the 7S pre-rRNA to the mature 5.8S rRNA.

## CHROMOSOMAL LOCATION

Genetic locus: EXOSC3 (human) mapping to 9p13.2; Exosc3 (mouse) mapping to 4 B1.

## SOURCE

EXOSC3 (B-8) is a mouse monoclonal antibody raised against amino acids 1-275 representing full length EXOSC3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EXOSC3 (B-8) is available conjugated to agarose (sc-166568 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166568 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166568 PE), fluorescein (sc-166568 FITC), Alexa Fluor® 488 (sc-166568 AF488), Alexa Fluor® 546 (sc-166568 AF546), Alexa Fluor® 594 (sc-166568 AF594) or Alexa Fluor® 647 (sc-166568 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166568 AF680) or Alexa Fluor® 790 (sc-166568 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

EXOSC3 (B-8) is recommended for detection of EXOSC3 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 EXOSC3 siRNA (h): sc-92854, EXOSC3 siRNA (m): sc-144976, EXOSC3 shRNA Plasmid (h): sc-92854-SH, EXOSC3 shRNA Plasmid (m): sc-144976-SH, EXOSC3 shRNA (h) Lentiviral Particles: sc-92854-V and EXOSC3 shRNA (m) Lentiviral Particles: sc-144976-V.

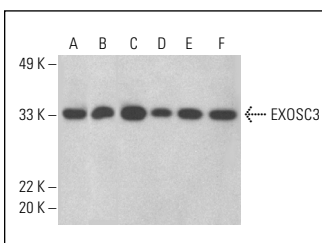
Molecular Weight of EXOSC3: 31 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa nuclear extract: sc-2120 or A-431 whole cell lysate: sc-2201.

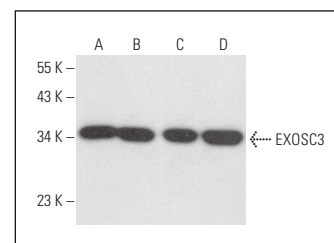
## RECOMMENDED SUPPORT REAGENTS

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



EXOSC3 (B-8) HRP: sc-166568 HRP. Direct western blot analysis of EXOSC3 expression in HeLa nuclear extract (A) and IB4 (B), K-562 (C), A-431 (D), Jurkat (E) and MDA-MB-435S (F) whole cell lysates.



EXOSC3 (B-8): sc-166568. Western blot analysis of EXOSC3 expression in HeLa nuclear extract (A) and K-562 (B), A-431 (C) and MDA-MB-435S (D) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Wan, J., et al. 2012. Mutations in the RNA exosome component gene EXOSC3 cause pontocerebellar hypoplasia and spinal motor neuron degeneration. *Nat. Genet.* 44: 704-708.
- Erazo, A. and Goff, S.P. 2015. Nuclear matrix protein Matrin 3 is a regulator of ZAP-mediated retroviral restriction. *Retrovirology* 12: 57.
- Bugai, A., et al. 2019. P-TEFb activation by RBM7 shapes a pro-survival transcriptional response to genotoxic stress. *Mol. Cell* 74: 254-267.e10.
- Chen, Y., et al. 2023. The ubiquitin-specific protease USP36 SUMOylates EXOSC10 and promotes the nucleolar RNA exosome function in rRNA processing. *Nucleic Acids Res.* 51: 3934-3949.

## 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](http://www.scbt.com) for detailed protocols and support products.