

EXOSC4 (G-9): sc-166772

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. EXOSC4 (exosome component 4), also known as SKI6, RRP41 or p12A, is a 245 amino acid protein that localizes to both the nucleus and the cytoplasm and shares 96% sequence identity with its mouse counterpart. Functioning as a component of the exosome complex, EXOSC4 exhibits 3'-5' exonuclease activity and is required for the 3'-processing of 7S pre-rRNA to mature 5.8S rRNA. The gene encoding EXOSC4 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies.

CHROMOSOMAL LOCATION

Genetic locus: EXOSC4 (human) mapping to 8q24.3; Exosc4 (mouse) mapping to 15 D3.

SOURCE

EXOSC4 (G-9) is a mouse monoclonal antibody raised against amino acids 2-243 of EXOSC4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

EXOSC4 (G-9) is available conjugated to agarose (sc-166772 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166772 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166772 PE), fluorescein (sc-166772 FITC), Alexa Fluor® 488 (sc-166772 AF488), Alexa Fluor® 546 (sc-166772 AF546), Alexa Fluor® 594 (sc-166772 AF594) or Alexa Fluor® 647 (sc-166772 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166772 AF680) or Alexa Fluor® 790 (sc-166772 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

EXOSC4 (G-9) is recommended for detection of EXOSC4 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 EXOSC4 siRNA (h): sc-77781, EXOSC4 siRNA (m): sc-144977, EXOSC4 shRNA Plasmid (h): sc-77781-SH, EXOSC4 shRNA Plasmid (m): sc-144977-SH, EXOSC4 shRNA (h) Lentiviral Particles: sc-77781-V and EXOSC4 shRNA (m) Lentiviral Particles: sc-144977-V.

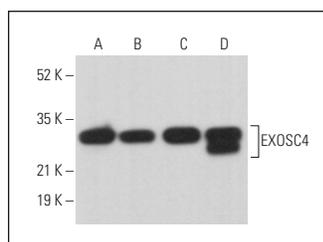
Molecular Weight of EXOSC4: 27 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, BJAB whole cell lysate: sc-2207 or NIH/3T3 whole cell lysate: sc-2210.

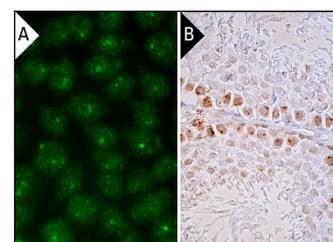
RECOMMENDED SUPPORT REAGENTS

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



EXOSC4 (G-9): sc-166772. Western blot analysis of EXOSC4 expression in HeLa (A), BJAB (B), NIH/3T3 (C) and SP2/O (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



EXOSC4 (G-9): sc-166772. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat testis tissue showing nucleolar and nuclear staining of a subset of cells in seminiferous ducts. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216 (B).

SELECT PRODUCT CITATIONS

- Nordsborg, N.B., et al. 2015. Oxidative capacity and glycogen content increase more in arm than leg muscle in sedentary women after intense training. *J. Appl. Physiol.* 119: 116-123.
- Shi, H., et al. 2018. Skeletal muscle O-GlcNAc transferase is important for muscle energy homeostasis and whole-body Insulin sensitivity. *Mol. Metab.* 11: 160-177.
- Jia, Q., et al. 2020. Effects of GPR81 silencing combined with cisplatin stimulation on biological function in hypopharyngeal squamous cell carcinoma. *Mol. Med. Rep.* 22: 1727-1736.
- Balaratnam, S., et al. 2022. Decay of piwi-interacting RNAs in human cells is primarily mediated by 5' to 3' exoribonucleases. *ACS Chem. Biol.* 17: 1723-1732.

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.