3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Monoclonal Anti-EXOSC5, clone EXOSC5(A)-2
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200610**

Product Description

Monoclonal Anti-EXOSC5 (mouse IgG1 isotype) is derived from the hybridoma EXOSC5(A)-2 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to the N-terminal region of human EXOSC5 (GeneID: 56915), conjugated to KLH. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-EXOSC5 recognizes human EXOSC5. The antibody may be used in various immunochemical techniques including immunoblotting (~25 kDa), immunoprecipitation and immunofluorescence. Detection of the EXOSC5 band by immunoblotting is specifically inhibited by the immunizing peptide.

EXOSC5, also known as RRP46, is a non-catalytic component of the eukaryotic RNA exosome. The exosome is an evolutionary conserved multisubunit 3' to 5' exoribonuclease complex that exist both in the nucleus and cytoplasm and is involved in degradation and processing of cellular RNA. The eukaryotic exosome is a 400 kDa complex composed of a nine-subunit catalytically inert core that serves a structural function and participates in substrate recognition, and two associated catalytic subunits. Structural studies revealed the following model: six subunits (EXOSC4-EXOSC9) form a hexameric ring that is capped by three RNA binding subunits (EXOSC1-EXOSC3). The tenth subunit, DIS3 (also called RRP44 and EXOSC11), is a catalytic subunit that interacts with the ''bottom'' of the hexameric ring. In the nucleus DIS3 associates with an additional catalytic subunit, RRP6 (EXOSC10), forming an eleven-subunit exosome.[1-5]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8°C for up to one month. For extended storage, freeze at –20°C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-5 µg/mL is recommended using whole extracts of human HEK-293T cells.

Immunofluorescence: a working concentration of 2-5 µg/mL is recommended using human HeLa cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Tomecki, R., et al., *EMBO J.*, **29**, 2342-2357 (2010).
2. Kiss, D.L., et al., *RNA*, **16**, 781-791 (2010).
3. Chlebowski, A., et al., *Adv. Exp. Med. Biol.*, **702**, 63-78 (2011).
4. Tomecki, R., et al., *Chembiochem.*, **11**, 938-945 (2010).
5. Brouwer, R., et al., *J. Biol. Chem.*, **276**, 6177-6184 (2001).

ST,RC,PHC 12/13-1