

Product Information

Anti-EXOSC4

produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200397**

Product Description

Anti-EXOSC4 is produced in rabbit using as immunogen a peptide corresponding to the N-terminal region of human EXOSC4 (GenoID: 54512), conjugated to KLH. The corresponding sequence differs by one amino acid in mouse and rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-EXOSC4 recognizes human and mouse EXOSC4. The antibody may be used in various immunochemical techniques including immunoblotting (~26 kDa), immunoprecipitation and immunofluorescence. Detection of the EXOSC4 band by immunoblotting is specifically inhibited by the immunizing peptide. An additional band ~72 kDa may appear in some extract preparations.

EXOSC4, also known as RRP41, is a non-catalytic component of the eukaryotic RNA exosome. The exosome is an evolutionarily conserved multi-subunit 3' to 5' exoribonuclease complex that exists 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, RRP6¹⁻⁵ (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.

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 in working aliquots. Repeated freezing and thawing 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 antibody concentration of 2-4 µg/mL is recommended using whole extracts of mouse Hepa 1-6 cells.

Immunoprecipitation: a working amount of 2.5-5.0 µg is recommended using lysates of human HeLa cells.

Immunofluorescence: a working antibody concentration of 5-10 µg/mL is recommended using human HeLa cells.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

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).

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