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Product Information

Anti-EXOSC1 antibody, Mouse monoclonal clone EX-1, purified from hybridoma cell culture

Catalog Number **SAB4200624**

Product Description

Anti-EXOSC1 antibody, Mouse monoclonal (mouse IgG1 isotype) is derived from the hybridoma EX-1 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a sequence at the internal region of human EXOSC1 (GeneID: 51013) conjugated to KLH. The corresponding sequence is identical in mouse and rat. 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-EXOSC1 recognizes human, mouse, and rat EXOSC1. The product may be used in several immunochemical techniques including immunoblotting (~21 kDa) and flow cytometry. Detection of the EXOSC1 band by immunoblotting is specifically inhibited by the immunizing peptide.

The exosome is an evolutionary 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 it interacts with EXOSC10.[1] EXOSC1, also known as CSL4, is a non-catalytic component of the eukaryotic RNA exosome. This subunit does not contain any essential domains, but its zinc-ribbon domain is required for exosome-mediated mRNA.[2]

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 Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

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 1–2 µg/mL is recommended using whole extracts of HEK 293 cells.

Flow Cytometry: A working dilution of 5–10 µg/test is recommended using HeLa cells.

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

References

1. Chlebowski, A. et al., *Biochem. Biophys. Acta*, **1829**, 552-560 (2013).
2. Schaffer, D. et al., *Nat., Struct. Mol. Biol.,* **16**, 56-62 (2009).

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