Product Information

Anti-DIS3 antibody, Mouse monoclonal

Clone DIS3-3, purified from hybridoma cell culture

SAB4200474

Product Description

Anti-DIS3 (mouse IgG1 isotype) is derived from the hybridoma DIS3-3 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 C-terminal region of human DIS3 (GeneID: 22894), conjugated to KLH. The peptide sequence is human specific. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Cat. No. ISO2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti-DIS3 recognizes human DIS3. The antibody may be used in various immunochemical techniques including immunoblotting (~ 109 kDa), immunoprecipitation and immunofluorescence. Detection of the DIS3 band by immunoblotting is specifically inhibited by the immunizing peptide.

DIS3 mitotic control homolog, also known as RRP44 and EXOSC11, is a catalytic component of the eukaryotic RNA exosome. The RNA exosome is a ribonucleolytic complex of 400 kDa involved in RNA processing and turnover. It is composed of a nine-subunit catalytically inert core that serves a structural function and participates in substrate recognition, and the associated catalytic subunits EXOSC10, and DIS3 or its homolog DIS3L. The exosome was characterized as a multisubunit complex important for the 3′ → 5′ processing and degradation of many types of RNAs, including mRNA, rRNA, snRNA, snoRNA, and tRNA. DIS3 and DIS3L are active exonucleases. DIS3 also displays endonuclease activity. The exosome complex is localized both to the nucleus and the cytoplasm. DIS3 is mainly nuclear, whereas DIS3L is strictly cytoplasmic.[1-4]

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 research 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 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 1-2 µg/mL is recommended using whole extracts of human HEK-293T cells.

Immunofluorescence: a working concentration of 2.5-5.0 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).

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SAB4200474dat Rev 07/21