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Product Information

Anti-NONO antibody, Mouse monoclonal
clone NC5, purified from hybridoma cell culture

Catalog Number **SAB4200502**

Product Description

Anti-NONO (mouse IgG2a isotype) is derived from the hybridoma NC5 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 mouse NONO (GeneID: 53610), conjugated to KLH.[1] The corresponding sequence is identical in rat and differs by a single amino acids in human. 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.

Anti-NONO recognizes mouse NONO. The antibody can be used in several immunochemical techniques including immunoblotting (~54 kDa) and immunofluorescence.

NONO (non-POU-domain-containing, octamer binding protein), also known as p54nrb, is a member of the DBHS (Drosophila behavior, human splicing) protein family, consisting also of PSPC1 (paraspeckle protein 1) and SFPQ (splicing factor, praline- and glutamine-rich). NONO, PSPC1 and SFPQ are the core protein components of paraspeckles. DBHS proteins bind both double- and single-stranded DNA and RNA, and are involved in various aspects of RNA and DNA metabolism, such as transcription, pre-mRNA 3' processing, transcription termination and mRNA splicing. These multi-functional nuclear proteins, under normal conditions, cycle between the nucleoplasm, paraspeckles and the nucleolus. DBHS proteins are involved in several biological processes, including the regulation of circadian rhythm, carcinogenesis and progression of cancer. NONO complexes with androgen receptor and activates androgen receptor mediated transcription. NONO is necessary for cAMP-dependent activation of CREB target genes acting as a bridge between the CREB/TORC complex and RNA polymerase II.[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

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 0.5-1.0 μg/mL is recommended using whole extracts of mouse Hepa1-6 cells.

Immunofluorescence: a working concentration of 1-2 μg/mL is recommended using mouse Hepa1-6 cells.

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

References

1. Kuwahara, S., et al., *Biol. Reprod.*, **75**, 352-359 (2006).
2. Bond, C.S., and Fox, A.H., *J. Cell Biol.*, **186**, 637–644 (2009).
3. Shav-Tal, Y., and Zipori, D., *FEBS Lett.*, **531**, 109-114 (2002).
4. Passon, D.M., et al., *Proc. Natl. Acad. Sci. USA*, **109**, 4846-4850 (2012).
5. Amelio, A.L., et al., *Proc. Natl. Acad. Sci. USA*, **104**, 20314–20319 (2007).

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