

Product Information

Monoclonal Anti-SMYD3, clone SMYD3-2
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200344**

Product Description

Monoclonal Anti-SMYD3 (mouse IgG1 isotype) is derived from the hybridoma SMYD3-2 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a fusion protein corresponding to a fragment of human SMYD3 (GeneID: 64754). 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-SMYD3 recognizes human, mouse and rat SMYD3. The antibody may be used in several immunochemical techniques including immunoblotting (~43 kDa) and immunoprecipitation.

SMYD3 belongs to the SMYD family of chromatin regulators, which is important in heart and skeletal muscle development. SMYD3 is a histone methyltransferase that plays a role in transcriptional regulation as a member of an RNA polymerase complex. SMYD3 contains a SET domain, which is critical for the methylation of histone H3 at Lys⁴, and a MYND-type zinc-finger domain, which is common to developmental proteins. High levels of SMYD3 have been observed in different types of cancer cells. SMYD3 is required for estrogen receptor-regulated gene transcription in the estrogen signaling pathway.¹⁻³

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 5-10 µg/mL is recommended using a whole extracts of HeLa cells.

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

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References

1. Sirinupong, N., et al., *J. Mol. Biol.*, **406**, 149-159 (2011).
2. Kim, H., et al., *J. Biol. Chem.*, **284**, 19867-19877 (2009).
3. Hamamoto, R., et al., *Nat. Cell Biol.*, **6**, 731-740 (2004).

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