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Product Information

Monoclonal Anti-RNF4 antibody produced in mouse clone RN.4, purified from hybridoma cell culture

Catalog Number **SAB4200645**

Product Description

Monoclonal Anti-RNF4 (mouse IgG1 isotype) is derived from the hybridoma RN.4 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 RNF4 (GeneID: 6047), 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-RNF4 recognizes human RNF4. The product may be used in several immunochemical techniques including immunoblotting (~30 kDa), immunofluorescence and flow cytometry.

RNF4 (RING finger protein 4) is a E3 ubiquitin ligase also known as, Small Nuclear Ring Finger protein (SNURF). RNF4 can recognize SUMO-modified proteins and target them for ubiquitin-mediated proteolysis.[1] Therefore, it is referred as STUbL (SUMO-targeting ubiquitin-ligase).[1-3]

It was found to associate with Promyelocytic leukaemia (PML) nuclear bodies and regulate PML/PML-fusion protein stability in response to arsenic-induced stress.[2-3] RNF4 also regulates the turnover of kinetochore protein CENP-I.[4-5] RNF4 knockdown, results in chromosome segregation errors due to chromosome bridges. STUbLs such as RNF4 have a conserved role in maintenance of chromosome stability and link SUMO-dependent ubiquitination to centromere-specific function during mitosis.[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 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 ^{0}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 2-4 μg/mL is recommended using whole extracts of HEK-293 cells.

Immunofluorescence: a working concentration of 0.25-0.5 μg/mL is recommended using HeLa cells.

Flow Cytometry: a working dilution of 1-3 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. Hay, RT., *Biochem. Soc. Trans.*, **41**, 463-473 (2013).
2. Nagai, S., et al., *Cell Res.,* **21**, 474–485 (2011).
3. Weisshaar, S.R., *FEBS Lett.*, **582**, 3174-3178 (2008).
4. Van de Pasch, L.A., et al., *PLoS One*, **8**, e65628 (2013).
5. Mukhopadhyay, D., et al., .*J Cell Biol.*, **188**, 681-692 (2010).

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