

Product Information

Monoclonal Anti-BOP1, Clone BOP 6H11

produced in rat, purified immunoglobulin

Product Number **SAB4200081**

Product Description

Monoclonal Anti-BOP1 (rat IgG1 isotype) is derived from the hybridoma BOP 6H11 produced by the fusion of mouse myeloma cells (P3X63Ag8.653) and splenocytes from rat immunized with a peptide corresponding to a fragment of human BOP1 (GeneID: 23246), coupled to ovalbumin.¹ The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-BOP1 recognizes human BOP1. The product may be used in several immunochemical techniques including immunoblotting (~100 kDa), immunoprecipitation, and immunocytochemistry.²⁻³

The nucleus is the site of rRNA transcription, pre-rRNA processing, and ribosome subunit assembly.⁴ The mammalian 18S, 5.8S, and 28S rRNA are derived from a single 47S precursor (pre-rRNA), which is processed to the mature species through a series of endonucleolytic, exonucleolytic, and modification steps.⁵

A nucleolar complex termed PeBoW (Pes1, Bop1, and WDR12) complex has been characterized in eukaryotes and suggested to be required for ribosome biogenesis and cell proliferation. Quiescent or serum starved cells exhibit low levels of the complex's proteins, which are being induced by the proto-oncogene c-Myc upon cell cycle entry.¹ Interestingly, although c-Myc is upregulated in a variety of human malignancies, amplification of Bop1, but not Pes1, was frequently found in colorectal cancers, associated with an increase of Bop1 mRNA. Transient overexpression of Bop1 increased the percentage of multipolar spindles, while depletion of Pes1 and Bop1 resulted in an increase in abnormal mitotic figures.⁶ Furthermore, changes in Bop1 protein level were found to affect the assembly and integrity of the whole PeBoW complex.⁷

Reagent

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

Storage/Stability

Store at -20 °C. For continuous use, the product may be stored 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 antibody concentration of 0.5-1.0 µg/mL is recommended using HeLa cell extracts.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Hölzel, M. et al., *J. Cell Biol.*, **170**, 367-378 (2005).
2. Hölzel, M. et al., *Nuc. Acid Res.*, **35**, 789-800 (2006).
3. Grimm, T. et al., *Nuc. Acid Res.*, **34**, 3030-3043 (2006).
4. Thiry, M. et al., *Trends Cell Biol.*, **15**, 194-199 (2005).
5. Leary, D.J., and Huang, S., *FEBS Lett.*, **509**, 145-150 (2001).
6. Killan, A. et al., *Oncogene*, **23**, 8597-8602 (2004).
7. Rohmoser, M. et al., *Mol. Cell Biol.*, **27**, 3682-3694 (2007).

VS,GG,TD,KAA,PHC,MAM 05/19-1