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Product Information

Anti-BOB.1/OBF.1 antibody, Mouse monoclonal
clone Wue-AC5, purified from hybridoma cell culture

Product Number **B7810**

Product Description

Anti-BOB.1/OBF.1 antibody, Mouse monoclonal (mouse IgG2a isotype) is derived from the hybridoma Wue-AC5 produced by the fusion of mouse myeloma cells (NSO cells) and splenocytes from BALB/c mice immunized with recombinant BOB.1/OBF.1, C-terminal domain. The isotype is determined by a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Monoclonal Anti-BOB.1/OBF.1 recognizes human and mouse BOB.1/OBF.1. The antibody may be used in various immunochemical techniques including ELISA, immunoblotting (approx. 35 kDa),[1] immunohisto-chemistry, and immunoprecipitation.

B-cell-specific transcription is mediated by octamer motifs found in immunoglobulin heavy and light chain gene promoters and in some immunoglobulin enhancers. These sites are bound by the B cell specific Oct1and Oct2 transcription factors, and the B-cell-restricted co activator BOB.1/OBF.1. This protein interacts only with the Oct1/2 proteins through sub domains in the POU domain of the Oct1/2 proteins. This interaction fixes the Oct proteins to the DNA.[1-2] The C-terminal portion of BOB.1/OBF.1 is responsible for trans-activation activity by contact to the basal trans-cription machinery and other transcription factors such as PC4. In B cells, the BOB.1/OBF.1 protein is constitutively expressed while in T cells, it is expressed only after co-stimulation. Mice that are deficient for the BOB.1/OBF.1 gene develop reduction of transitional B cells in the bone marrow and a complete loss of germinal center formation in the spleen and lymph nodes. The proteasome pathway regulates BOB.1/OBF.1 protein by interacting with E3 ligases like SIAH1/2.[1-2] It has been shown that BOB.1/OBF.1 may regulate the expression of other genes like myosin light chain 1 (MLC1A) and aldehyde dehydrogenase 2 in B lymphocytes.[3-4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody Concentration: Approx. 2 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 continuous use, store at 2-8 °C for up to one month. For prolonged storage, freeze 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 4-8 μg/ml is recommended using total cell extract of human Burkitt Lymphoma cell line.

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

References

1. Bohem, J., et al., *EMBO J*., **20**, 4153-4162 (2001).
2. Samardzic, T., et al., *Mol. Cell. Biol*., **22**, 8320-8331 (2002).
3. Laumen, H., et al., *Nuc. Acid Res*., **32**, 1577-1583 (2004).
4. Brunner, C., et al., *J. Biol. Chem*., **278**, 45231-45239 (2003).

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