

# PRODUCT INFORMATION

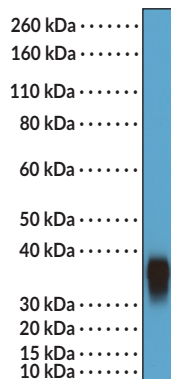


## BOB-1/OBF-1 (C-Term) Rabbit Monoclonal Antibody (Clone RM378) Item No. 32303

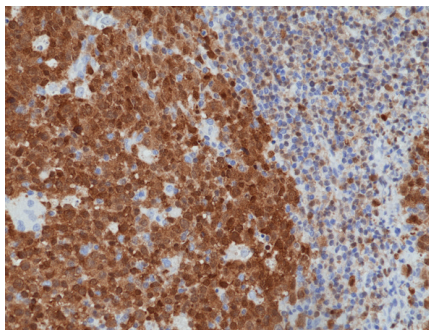
### Overview and Properties

<b>Contents:</b>	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
<b>Synonyms:</b>	B cell-specific Coactivator OBF-1, BOB.1, OCA-B, OCT-binding Factor 1, POU Domain Class 2-associating Factor 1, POU2AF1
<b>Immunogen:</b>	Peptide from the C-terminal region of human BOB-1
<b>Cross Reactivity:</b>	(+) BOB-1
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
<b>Clone:</b>	RM378
<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG
<b>Applications:</b>	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:1,000-1:2,000 for IHC and 1:5,000-1:10,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Images



WB of Daudi lysates using BOB-1/OBF-1 (C-Term) Rabbit Monoclonal Antibody (Clone RM378) at a dilution of 1:10,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using BOB-1/OBF-1 (C-Term) Rabbit Monoclonal Antibody (Clone RM378) at a 1:1,250 dilution.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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**CAYMAN CHEMICAL**  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM

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## Description

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B cell Oct Binding Factor 1 (BOB-1) is a transcription factor that has a role in B cell development and function.<sup>1</sup> It contains a polypeptide region, a two-turn  $\alpha$ -helix, and a disordered region.<sup>2</sup> It is primarily expressed on B cells, with the highest expression in germinal center B cells, and transiently expressed on activated T cells.<sup>1</sup> Its expression is induced by downstream signaling of B cell receptors, as well as IL-4, CD40 ligand (CD40L), and LPS.<sup>3</sup> BOB-1 is a coactivator that is recruited to the POU domain of the transcription factors Oct-1 and Oct-2 and enhances their transactivation.<sup>1</sup> Mice deficient in *POU2AF1*, the gene encoding BOB-1, have reduced numbers of transitional and mature B cells and lack a marginal zone B cell compartment and germinal center in the bone marrow, leading to deficits in secondary immunoglobulin isotype production.<sup>3,4</sup> *POU2AF1* is downregulated in classical, but not lymphocyte-predominant, Hodgkin lymphoma.<sup>5</sup> Cayman's BOB-1/OBF-1 (C-Term) Rabbit Monoclonal Antibody (Clone RM378) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

## References

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1. Sauter, P. and Matthias, P. Coactivator OBF-1 makes selective contacts with both the POU-specific domain and the POU homeodomain and acts as a molecular clamp on DNA. *Mol. Cell. Biol.* **18(12)**, 7397-7409 (1998).
2. Chasman, D., Cepek, K., Sharp, P.A., *et al.* Crystal structure of an OCA-B peptide bound to an Oct-1 POU domain/octamer DNA complex: Specific recognition of a protein-DNA interface. *Genes Dev.* **13(20)**, 2650-2657 (1999).
3. Brunner, C. and Wirth, T. BOB.1/OBF.1 - A critical regulator of B cell function. *Curr. Immunol. Rev.* **2(1)**, 3-12 (2006).
4. Kim, U., Qin, X.-F., Gong, S., *et al.* The B-cell-specific transcription coactivator OCA-B/OBF-1/Bob-1 is essential for normal production of immunoglobulin isotypes. *Nature* **383(6600)**, 542-547 (1996).
5. Stein, H., Marafioti, T., Foss, H.-D., *et al.* Down-regulation of BOB.1/OBF.1 and Oct2 in classical Hodgkin disease but not in lymphocyte predominant Hodgkin disease correlates with immunoglobulin transcription. *Blood* **97(2)**, 496-501 (2001).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
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