

Datasheet for 600-401-H35**Bach2 Antibody****Overview**

Description:	Anti-Bach2 (RABBIT) Antibody - 600-401-H35
Item No.:	600-401-H35
Size:	100 µg
Applications:	ELISA, IP, WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details**Background:**

This antibody is designed, produced, and validated as part of a collaboration between Rockland and the National Cancer Institute (NCI) and is suitable for Cancer and DNA Damage & Repair research. During an immune response to infectious diseases and cancer, B-cells undergo activation in response to antigen, and differentiate either into short-lived plasma cells, whose numbers contract following withdrawal of the antigenic stimulus, or into memory B-cells. The formation of B-cell memory is the major goal of vaccination, since memory B-cells are able to produce antibodies specific to infections and cancer that can last for the lifetime of the host. Recently it has been shown that the formation of long-lived memory B-cells is dependent upon the transcription factor Bach2, since knockout mice lacking the gene fail to generate class-switched IgG antibody responses and all B-cells undergo default plasma cell differentiation upon antigenic stimulation. While the mechanism by which Bach2 controls B-cell memory fate has been elucidated (it binds and represses the promoter of the gene that encodes the plasma cell master regulatory transcription factor Blimp-1), the upstream mechanism by which the function of Bach2 is regulated is unknown. There is evidence suggesting that Bach2 is phosphorylated in B-cells following stimulation and suspect that this modification may allow the B-cell signaling apparatus to control Bach2 activity and therefore memory fate decisions. Anti-Bach2 is ideal for researchers interested in Cancer and DNA Damage & Repair research.

Synonyms:	rabbit anti-Bach2 Antibody, Bach-2, Bach 2, BTB and CNC homology 1, basic leucine zipper transcription factor 2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	Bach2
Reactivity:	Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Bach2 antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to the n-terminus region of the Bach2 protein.
Purity/Specificity:	Bach2 antibody is directed against mouse Bach2 (n-terminus) protein. Anti-Bach-2 was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest 100% homology with Bach2 protein from mouse. Reactivity against homologues from other sources is not known.
Relevant Links:	• UniProtKB - A2RR10 • NCBI - NP_001103131.1 Mouse • GeneID - 12014

Application Details

Tested Applications:	ELISA, IP, WB
Application Note:	Affinity purified Bach-2 antibody has been tested for use in ELISA, Immunoprecipitation, and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 91-140 kDa in size corresponding to Bach2 protein by western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000
IP:	1 µg/mL
WB:	1 µg/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.01mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: 0.01% (w/v) Sodium Azide

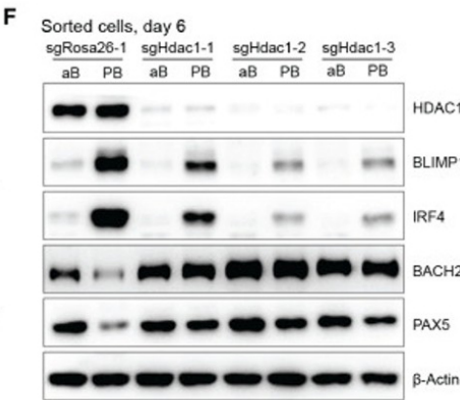
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

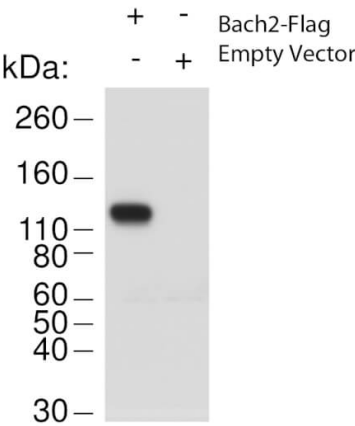
Expiration: Expiration date is one (1) year from date of receipt.

Images



Western Blot

(F) Western blots showing expression levels of HDAC1, BLIMP1, IRF4, BACH2 and PAX5 transcription factors in sorted CD138- activated B cells (aB) and CD138+ PBs (PB) treated with indicated sgRNAs. Beta-Actin was used as a loading control. Fig 5. PMID: 36685499



Western Blot

Western Blot of Rabbit anti-Bach2 antibody. Lane 1: 293T cell lysates overexpressing Bach2-Flag. Lane 2: 293T cell lysates. Load: 20 µg per lane. Primary antibody: Bach-2 antibody at 1:1000 for overnight at 4°C. Secondary antibody: rabbit HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted (native)/Observed (over-expressed) size: 91.7 kDa, ~130 kDa for Bach2. Other band(s): none.

References

- Xiong E et al. A CRISPR/Cas9-mediated screen identifies determinants of early plasma cell differentiation. *Front Immunol.* (2023)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.