

Datasheet for 600-401-H35S**Bach2 Antibody****Overview**

Description:	Anti-Bach2 (RABBIT) Antibody - 600-401-H35S
Item No.:	600-401-H35S
Size:	25 µL
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. The product 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:	0.97mg/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

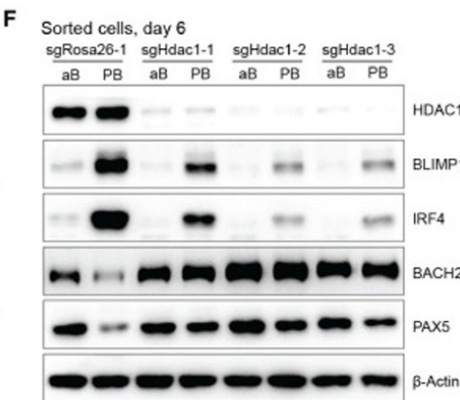
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

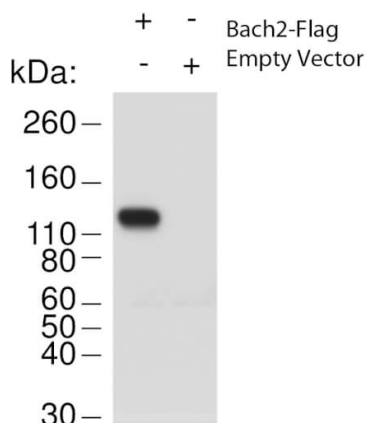
Expiration: Expiration date is one (1) year from date of receipt.

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

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