

## Anti-Human BACH1 (RABBIT) Antibody - 600-401-458

**Code:** 600-401-458

**Size:** 100 µg

**Product Description:** Anti-Human BACH1 (RABBIT) Antibody - 600-401-458

**Concentration:** 1.0 mg/mL by UV absorbance at 280 nm

**PhysicalState:** Liquid (sterile filtered)

<b>Label</b>	Unconjugated
<b>Host</b>	Rabbit
<b>Gene Name</b>	BACH1
<b>Species Reactivity</b>	human
<b>Buffer</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Stabilizer</b>	None
<b>Preservative</b>	0.01% (w/v) Sodium Azide
<b>Storage Condition</b>	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.
<b>Synonyms</b>	BRAC 1 Associated C Terminal Helicase 1 antibody, BRCA 1 Interacting Protein 1 antibody, BRCA1 binding helicase like protein BACH1 antibody, BRCA1 interacting protein C terminal helicase 1 antibody, BRIP 1 antibody
<b>Application Note</b>	This affinity purified antibody has been tested for use in ELISA and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 105 -140 kDa in size corresponding to isoforms of BACH1 protein by western blotting in the appropriate cell lysate or extract.
<b>Background</b>	BACH1 (also known as BRCA1 interacting protein C-terminal helicase 1, BRCA1-interacting protein 1 and BRCA1-associated C-terminal helicase 1) is a member of the RecQ DEAH helicase family and interacts with the BRCT repeats of breast cancer, type 1 (BRCA1). The bound complex is important in the normal double-strand break repair function of breast cancer, type 1 (BRCA1). The BACH1 gene may be a target of germline cancer-inducing mutations. BACH1 is localized within the nucleus and functions as a DNA-dependent ATPase and 5' to 3' DNA helicase. Two isoforms have been identified for this protein.
<b>Purity And Specificity</b>	This affinity purified antibody is directed against human BACH1 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross reactivity with BACH1 protein from human (100% homology) and chimpanzee (92% homology). Expect reactivity with isoform 1 and isoform 2 of BACH1. Reactivity against BACH1 homologues from rat and mouse is not expected. Reactivity against homologues from other sources is not known.
<b>Assay Dilutions</b>	User Optimized
<b>ELISA</b>	1:10,000 - 1:44,000
<b>WESTERN BLOT</b>	1:500- 1:2,000
<b>OTHER ASSAYS</b>	User Optimized
<b>Expiration</b>	Expiration date is one (1) year from date of opening.
<b>Immunogen</b>	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein corresponding to amino acids 92-104 of isoform 1 of human BACH1 protein.
<b>General Reference</b>	<p>Gupta,R., Sharma,S., Sommers,J.A., Jin,Z., Cantor,S.B. and Brosh,R.M. Jr. (2005) Analysis of the DNA substrate specificity of the human BACH1 helicase associated with breast cancer. J. Biol. Chem. 280 (27), 25450-25460.</p> <p>Beausoleil,S.A., Jedrychowski,M., Schwartz,D., Elias,J.E., Villen,J., Li,J., Cohn,M.A., Cantley,L.C. and Gygi,S.P. (2004) Large-scale characterization of HeLa cell nuclear phosphoproteins. Proc Natl Acad Sci U S A 101 (33), 12130-12135.</p> <p>Clapperton,J.A., Manke,I.A., Lowery,D.M., Ho,T., Haire,L.F., Yaffe,M.B. and Smerdon,S.J. (2004) Structure and mechanism of BRCA1 BRCT domain recognition of phosphorylated BACH1 with implications for cancer. Mol. Cell 11 (6), 512-518.</p> <p>Ohira,M., Seki,N., Nagase,T., Ishikawa,K., Nomura,N. and Ohara,O. (1998) Characterization of a human homolog (BACH1) of the mouse Bach1 gene encoding a BTB-basic leucine zipper transcription factor and its</p>

mapping to chromosome 21q22.1. Genomics 47 (2), 300-306.

Oyake,T., Itoh,K., Motohashi,H., Hayashi,N., Hoshino,H., Nishizawa,M., Yamamoto,M. and Igarashi,K. (1996) Bach proteins belong to a novel family of BTB-basic leucine zipper transcription factors that interact with MafK and regulate transcription through the NF-E2 site. Mol. Cell. Biol. 16 (11), 6083-6095.

#### Related Products

200-301-400	Anti-ATM Protein Kinase pS1981 (MOUSE) Monoclonal Antibody - 200-301-400
600-401-468	Anti-Yeast Rad9 pS1260 (RABBIT) Antibody - 600-401-468
MB-017	10X SDS-PAGE Running Gel Buffer (0.25 M Tris HCl, 1.92 M Glycine, 1.0% SDS pH 8.3) - MB-017

#### Related Links

UniProtKB	<a href="http://www.uniprot.org/uniprot/Q9BX63">http://www.uniprot.org/uniprot/Q9BX63</a>
NCBI	<a href="http://www.ncbi.nlm.nih.gov/protein/14042978">http://www.ncbi.nlm.nih.gov/protein/14042978</a>
NCBI - 14042978	<a href="http://www.ncbi.nlm.nih.gov/protein/14042978">http://www.ncbi.nlm.nih.gov/protein/14042978</a>
UniProt - Q9BX63	<a href="http://www.uniprot.org/uniprot/Q9BX63">http://www.uniprot.org/uniprot/Q9BX63</a>
Gene ID - 83990	<a href="http://www.ncbi.nlm.nih.gov/gene/83990">http://www.ncbi.nlm.nih.gov/gene/83990</a>

#### Images

- 1 Western blot using Rockland's Affinity Purified anti-BACH1 antibody shows detection of a band at ~105 kDa (lane 1) corresponding to human BACH1 present in a 293 whole cell lysate (arrowhead). Lane 2 shows that specific band staining is competed out when the antibody is pre-incubated with the peptide immunogen prior to reaction. Approximately 35 µg of lysate was separated on a 4-20% Tris-Glycine gel by SDS-PAGE and transferred onto nitrocellulose. After blocking the membrane was probed with the primary antibody diluted to 1:1,000. Reaction occurred 2 h at room temperature followed by washes and reaction with a 1:10,000 dilution of IRDye™800 conjugated Gt-a-Rabbit IgG [H&L] MX (611-132-122) for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers in lane M (700 nm channel, red). IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



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