Revision 1

Store at -20C

#12809

BACH2 Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	130	Rabbit	#Q9BYV9	60468

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

BACH2 Antibody recognizes endogenous levels of total BACH2 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala304 of human BACH2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The transcription regulator BTB and CNC homolog 2 (BACH2) is a bZIP domain-containing transcriptional repressor that dimerizes with MafK and binds Maf recognition elements (MAREs) to regulate transcription (1,2). BACH2 is part of a network of transcription factors that controls the transition of activated B cells into either antibody-producing plasma cells or memory B cells (3-5). Plasma cell differentiation requires the transcription factor Blimp1 (6). BACH2 suppresses expression of Blimp1 in activated B cells, which delays plasma cell differentiation and allows time for class switch recombination and somatic hypermutation (3-5). Genome-wide association studies have linked the genetic locus containing BACH2 to several immune-related disorders, including type 1 diabetes, celiac disease, Crohn's disease, and the skin condition known as vitiligo (7-10).

Background References

1. Oyake, T. et al. (1996) *Mol Cell Biol* 16, 6083-95.
2. Muto, A. et al. (1998) *EMBO J* 17, 5734-43.
3. Muto, A. et al. (2004) *Nature* 429, 566-71.
4. Ochiai, K. et al. (2006) *J Biol Chem* 281, 38226-34.
5. Muto, A. et al. (2010) *EMBO J* 29, 4048-61.
6. Shaffer, A.L. et al. (2002) *Immunity* 17, 51-62.
7. Cooper, J.D. et al. (2008) *Nat Genet* 40, 1399-401.
8. Dubois, P.C. et al. (2010) *Nat Genet* 42, 295-302.
9. Franke, A. et al. (2010) *Nat Genet* 42, 1118-25.
10. Jin, Y. et al. (2012) *Nat Genet* 44, 676-80.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

Trademarks and Patents

Limited Uses

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