

BACH1 (H-130): sc-28738

BACKGROUND

Members of the small Maf family (MafK, MafF, and MafG) are basic region leucine zipper (bZip) proteins that can function as transcriptional activators or repressors. They dimerize with other proteins and bind DNA to either repress or activate transcription depending on the dimer compositions. BACH1 and BACH2, heterodimerization partners of MafK, are members of a novel family of BTB/POZ-basic region leucine zipper (bzip) factors. BACH1 and BACH2 have significant similarity to each other in BTB domain and Cap "n" collar-type bZip domain but are otherwise divergent. BACH1 appears ubiquitous, whereas BACH2 is restricted to monocytes and neuronal cells and is abundantly expressed in the early stages of B cell differentiation.

REFERENCES

- Oyake, T., et al. 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: 6083-6095.
- Sasaki, S., et al. 2000. Cloning and expression of human B cell-specific transcription factor BACH2 mapped to chromosome 6q15. *Oncogene* 19: 3739-3749.
- Hoshino, H., et al. 2000. Oxidative stress abolishes leptomyacin B-sensitive nuclear export of transcription repressor BACH2 that counteracts activation of maf recognition element. *J. Biol. Chem.* 275: 15370-15376.
- Kanezaki, R., et al. 2000. Transcription factor BACH1 is recruited to the nucleus by its novel alternative spliced isoform. *J. Biol. Chem.* 276: 7278-7284.
- Kobayashi, A., et al. 2000. A combinatorial code for gene expression generated by transcription factor BACH2 and MAZR (MAZ-related factor) through the BTB/POZ domain. *Mol. Cell. Biol.* 20: 1733-1746.

CHROMOSOMAL LOCATION

Genetic locus: BACH1 (human) mapping to 21q21.3; Bach1 (mouse) mapping to 16 C3.3.

SOURCE

BACH1 (H-130) is a rabbit polyclonal antibody raised against amino acids 591-720 mapping near the C-terminus of BACH1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-28738 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

BACH1 (H-130) is recommended for detection of Bach1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BACH1 siRNA (h): sc-37064, BACH1 siRNA (m): sc-37065, BACH1 shRNA Plasmid (h): sc-37064-SH, BACH1 shRNA Plasmid (m): sc-37065-SH, BACH1 shRNA (h) Lentiviral Particles: sc-37064-V and BACH1 shRNA (m) Lentiviral Particles: sc-37065-V.

BACH1 (H-130) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BACH1: 92 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or U-20S cell lysate: sc-2295.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Tanimoto, T., et al. 2009. Genetic ablation of the Bach1 gene reduces hyperoxic lung injury in mice: role of IL-6. *Free Radic. Biol. Med.* 46: 1119-1126.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **BACH1 (F-9): sc-271211** or **BACH1 (L-25): sc-100995**, our highly recommended monoclonal alternatives to BACH1 (H-130).