

Product Information

Anti-C/EBP β antibody, Rat monoclonal
clone 7H5, purified from hybridoma cell culture

Catalog Number **SAB4200196**

Product Description

Anti-C/EBP β (rat IgG2a isotype) is derived from the hybridoma 7H5 produced by the fusion of mouse myeloma cells (SP2) and splenocytes from rat immunized with a mouse C/EBP β fusion protein (GeneID; 12608). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Anti- C/EBP β recognizes mouse C/EBP β . The product may be used in several immunochemical techniques including immunoblotting (~ 37 kDa) and immunocytochemistry.

The highly conserved family of C/EBP transcription factors bind to sequence-specific DNA sequences as dimers and regulate the transcription of genes involved in proliferation and differentiation. Six C/EBP genes designated C/EBP α , C/EBP β , C/EBP γ , C/EBP δ , C/EBP ϵ , and C/EBP ζ have thus far been identified.¹ Most of these proteins possess a c-terminal bZIP domain, which is essential for DNA binding. Homo- and hetero-dimeric interactions occur among the various members of this family. A member of this family, C/EBP β , exhibits remarkable plasticity with respect to the range of transcriptional activities it takes part in. C/EBP β regulates IL-6 and IL-6-induced expression of the cytokines IL-1, IL-8, tumor necrosis factor- α (TNF α), and granulocyte colony-stimulating factor (G-CSF), as well as acute phase response proteins such as α 1-acid glycoprotein, α 2-microglobulin, and C-reactive protein.² C/EBP β has also been implicated in the development of the mammary gland, in cell proliferation and survival in liver and in response to injuries and hormones in lungs.³⁻⁵ In addition, C/EBP β has been found to play a role in rodent as well as in human breast tumorigenesis.³ C/EBP β has two central regulatory domains RD1 and RD2, which harbor sites that can be phosphorylated by several protein kinases.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at -20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 2.0-4.0 μ g/mL is recommended using L929 or 3T3 cell extracts.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Lekstrom-Himes, J., and Xanthopoulos, K.G., *J. Biol. Chem.*, **273**, 28545-28548 (1998).
2. Li, H., et al., *Cell Mol. Immunol.*, **4**, 407-418 (2007).
3. Zahnow, C.A., *Breast Cancer Res.*, **4**, 113-121 (2002).
4. Buck, M., and Chojkier, M., *Hepatology*, **37**, 731-738 (2003).
5. Cassel, T.N., and Magnus, N., *Am. J. Physiol. Lung Cell Mol. Physiol.*, **285**, L773-L781 (2003).

RC,GG,CS,KAA,PHC 04/21-1