

# C/EBP $\zeta$ (D-22): sc-101901

## BACKGROUND

C/EBP  $\zeta$  (CCAAT/enhancer-binding protein  $\zeta$ ), also known as CBF, CBF2, NOC1 or HSP-CBF is a 1,054 amino acid nuclear protein belonging to the CBF/MAK21 family. C/EBP  $\zeta$  stimulates transcription from the HSP70 and HSP40 promoters in a NF-Y dependent manner, requiring an intact NF-Y trimer which binds to the DNA. C/EBP  $\zeta$  is thought to be a potential tumor suppressor gene, and aberrant methylation of the C/EBP  $\zeta$  promoter may be involved with acute myeloid leukemia. The C/EBP  $\zeta$  gene is conserved in a wide number of species including chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish and *C. elegans* and is located on human chromosome 2. Chromosome 2, the second largest human chromosome, consists of 237 million bases encoding over 1,400 genes, comprising approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2.

## REFERENCES

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- Imbriano, C., et al. 2001. HSP-CBF is an NF-Y-dependent coactivator of the heat shock promoters CCAAT boxes. *J. Biol. Chem.* 276: 26332-26339.
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- Qian, J., et al. 2005. Quantitative study on C/EBP  $\zeta$  gene transcripts in patients with chronic myeloid leukemia using real-time quantitative PCR. *Zhonghua Yi Xue Yi Chuan Xue Za Zhi* 22: 628-631.

## CHROMOSOMAL LOCATION

Genetic locus: CEBPZ (human) mapping to 2p22.2.

## SOURCE

C/EBP  $\zeta$  (D-22) is a purified rabbit polyclonal antibody raised against C/EBP  $\zeta$  of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## STORAGE

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

## APPLICATIONS

C/EBP  $\zeta$  (D-22) is recommended for detection of C/EBP  $\zeta$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for C/EBP  $\zeta$  siRNA (h): sc-94538, C/EBP  $\zeta$  shRNA Plasmid (h): sc-94538-SH and C/EBP  $\zeta$  shRNA (h) Lentiviral Particles: sc-94538-V.

Molecular Weight of C/EBP  $\zeta$ : 121 kDa.

## 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.