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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# C/EBP $\alpha$ (m): 293T Lysate: sc-126522

## BACKGROUND

The transcription factor C/EBP  $\alpha$  (CCAAT-enhancer binding protein) is a heat-stable, sequence-specific DNA-binding protein that binds avidly to several different *cis*-regulatory DNA sequences commonly associated with viral and cellular genes transcribed by RNA polymerase II. C/EBP  $\alpha$  regulates gene expression in a variety of tissues including liver, adipose, lung and intestine. C/EBP  $\alpha$  is a basic region/leucine zipper transcription factor selectively expressed during the differentiation of liver, adipose tissue, blood cells and the endocrine pancreas. C/EBP  $\alpha$  uses a bipartite structural motif to bind DNA and appears to function exclusively in terminally differentiated, growth-arrested cells. In the liver, C/EBP  $\alpha$  is a transactivator of several genes, which are regulated by growth hormone. Growth hormone enhances not only the levels of C/EBP  $\alpha$  mRNA and protein, but also the DNA-binding activity of C/EBP  $\alpha$ . C/EBP  $\alpha$  functions as an important transcription factor that regulates different genes, including prolactin gene expression.

## REFERENCES

1. Johnson, P.F., et al. 1987. Identification of a rat liver nuclear protein that binds to the enhancer core element of three animal viruses. *Genes Dev.* 1: 133-146.
2. Landschulz, W.H., et al. 1988. Isolation of a recombinant copy of the gene encoding C/EBP. *Genes Dev.* 2: 786-800.
3. Birkenmeier, E.H., et al. 1989. Tissue-specific expression, developmental regulation, and genetic mapping of the gene encoding CCAAT/enhancer binding protein. *Genes Dev.* 3: 1146-1156.
4. Cao, Z., et al. 1991. Regulated expression of three C/EBP isoforms during adipose conversion of 3T3-L1 cells. *Genes Dev.* 5: 1538-1552.
5. Rana, B., et al. 1995. The DNA-binding activity of C/EBP transcription factor is regulated in the G<sub>1</sub> phase of the hepatocyte cell cycle. *J. Biol. Chem.* 270: 18123-18132.
6. Maytin, E.V., et al. 1998. Transcription factors C/EBP  $\alpha$ , C/EBP  $\beta$ , and CHOP (Gadd153) expressed during the differentiation program of keratinocytes *in vitro* and *in vivo*. *J. Invest. Dermatol.* 110: 238-246.
7. Yiangou, M., et al. 1998. Induction of a subgroup of acute phase protein genes in mouse liver by hyperthermia. *Biochim. Biophys. Acta* 1396: 191-206.
8. Jacob, K.K., et al. 1999. CCAAT/enhancer-binding protein  $\alpha$  is a physiological regulator of prolactin gene expression. *Endocrinology* 140: 4542-4550.
9. Strand, P., et al. 2000. Growth hormone induces CCAAT/enhancer binding protein  $\alpha$  (C/EBP  $\alpha$ ) in cultured rat hepatocytes. *J. Hepatol.* 32: 618-626.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

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

## CHROMOSOMAL LOCATION

Genetic locus: *Cebpa* (mouse) mapping to 7 B1.

## PRODUCT

C/EBP  $\alpha$  (m): 293T Lysate represents a lysate of mouse C/EBP  $\alpha$  transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

C/EBP  $\alpha$  (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive C/EBP  $\alpha$  antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## RESEARCH USE

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