

CTF1

CCAAT-Box-Binding Transcription Factor 1 human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-734	5 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -80°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 20 mM Tris-HCl, pH 7.9, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT, 20% glycerol.

Activity

30-100 ng are required for reconstituted transcription assay and 5-20 ng are required for a gel mobility shift assay in a 20 µl reaction.

Purity

> 95% by SDS-PAGE.

Description

The CCAAT-box binding protein 1 (CTF1, also called NF-1 or NF-1) is a proline-rich transcription activator. It selectively activates transcription of genes that contain GC-CAAT consensus sequence in promoter region, including human Ha-Ras, α -globin, hsp70, and many other cellular and viral genes. Cloning and functional characterization of the protein revealed that CTF1 contains a N-terminal DNA binding domain and a C-terminal proline-rich activation domain. CTF1 was shown to interact with the general transcription factor IIB (TFIIB) and facilitate the recruitment of TFIIB to TBP-DNA complexes, with the forkhead thyroid transcription factor TTF2 to regulate hormonedependent transcription of thyroperoxidase gene, as well as other receptor proteins to synergize hormone receptor-responsive activation.

The wild type human CTF1 protein (499 amino acids) was expressed in baculovirus system and purified by using an affinity column and FPLC chromatography.

Purified CTF1 has been used for *in vitro* transcriptional activation, DNase I protection, gel mobility shift, and protein-protein interaction assays.

Purified CTF1 protein is greater than 90% homogeneous and contains no detectable protease, DNase, and RNase activity.

Selected References:

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- Lum *et al.* (1990) A cloned human CCAAT-box-binding factor stimulates transcription from the human hsp70 promoter. *Mol. Cell. Biol.* **10**:6709.
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- Toohey *et al.* (1990) Functional elements of the steroid hormone-responsive promoter of mouse mammary tumor virus. *J. Virol.* **64**:4477.
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