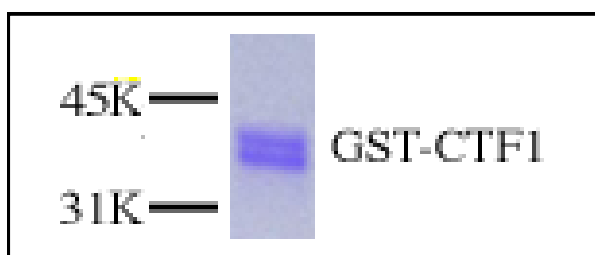


## CTF1<sup>GST-Tag</sup>

### CCAAT-Box-Binding Transcription Factor 1, activation domain, residues 399-499

human, recombinant, *E. coli*

Cat. No.	Amount
PR-798	10 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 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

#### Activity

100 ng are sufficient for a protein-protein interaction assay.

#### 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 GCCAAT consensus sequence in promoter region, including human Ha-Ras, alpha-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 proline-rich activation domain of human CTF1 protein (amino acids 399-499) is isolated from an *E. coli* strain that carries the coding sequence of the fused protein under the control of a T7 promoter. GST-CTF1 has been used for protein-protein interaction assays.

#### Selected References:

- Jones *et al.* (1987) A cellular DNA-binding protein that activates eukaryotic transcription and DNA replication. *Cell* **48**:79.
- Santoro *et al.* (1988) A family of human CCAAT-box-binding proteins active in transcription and DNA replication: cloning and expression of multiple cDNAs. *Nature* **334**:218.
- Mermod *et al.* (1989) The proline-rich transcriptional activator of CTF/NF-1 is distinct from the replication and DNA binding domain. *Cell* **58**:741.
- Lum *et al.* (1990) A cloned human CCAAT-box-binding factor stimulates transcription from the human hsp70 promoter. *Mol. Cell. Biol.* **10**:6709.
- Cardinaux *et al.* (1994) Complex organization of CTF/NF-1, C/EBP, and HNF3 binding sites within the promoter of the liver-specific vitellogenin gene. *J. Biol. Chem.* **269**:32947.
- Ortiz *et al.* (1999) The Interaction between the Forkhead Thyroid Transcription Factor TTF-2 and the Constitutive Factor CTF/NF-1 Is Required for Efficient Hormonal Regulation of the Thyroperoxidase Gene Transcription *J. Biol. Chem.* **274**:15213.
- Corthesy *et al.* (1989) A nuclear factor I-like activity and a liverspecific repressor govern estrogen-regulated *in vitro* transcription from the *Xenopus laevis* vitellogenin B1 promoter. *Mol. Cell. Biol.* **9**:5548.
- Toohy *et al.* (1990) Functional elements of the steroid hormoneresponsive promoter of mouse mammary tumor virus. *J. Virol.* **64**:4477.
- Candeliere *et al.* (1996) A composite element binding the vitamin D receptor, retinoid X receptor alpha, and a member of the CTF/NF-1



## CTF1<sup>GST-Tag</sup>

**CCAAT-Box-Binding Transcription Factor 1, activation domain, residues 399-499**

**human, recombinant, *E. coli***

family of transcription factors mediates the vitamin D responsiveness of the c-fos promoter. *Mol. Cell. Biol.* **16**:584.