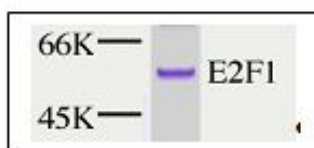


E2F-1

RBAP-1, Transcription Factor and Rb-mediator human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-730	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 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT, 20% glycerol.

Activity

1 ng is sufficient for a gel mobility shift assay in a 20 µl reaction, 50 ng are sufficient for reconstituted transcription assay and 100 ng are sufficient for a protein-protein interaction assay.

Molecular Weight

54 kDa

Purity

>95% by SDS-PAGE

Description

E2F was originally identified as a transcription factor mediating the transcription of adenovirus E2 gene. It is a heterodimer composed of two structurally related subunits, termed E2F and DP. E2F is encoded by at least five genes, E2F-1 through E2F-5, and DP is encoded by at least two genes, DP-1 and DP-2. All these genes (E2F-1 through E2F-5, DP-1 and DP-2) have been considered as the members of E2F gene family because all of them have a number of common structural and functional characteristics. Among those members of E2F family, E2F-1 was the first E2F gene cloned and characterized. The E2F-1 protein has been shown to interact with RB both *in vivo* and *in vitro*. Although the E2F proteins can function as transcription factors by themselves, they should be considered as RB-mediators as well because almost every functional response of RB protein(s) requires the presence of E2F protein(s).

The wild type E2F-1 (residue 1-437) was expressed in baculovirus system and purified in combination of an affinity column and FPLC chromatography.

Recombinant E2F-1 protein can be used 1) for *in vitro* function studies including transcription, DNA binding and DNA bending assays; 2) for protein-protein interaction assay; and 3) for cell growth and proliferation assays.

Purified protein is greater than 95% homogeneous and contains no detectable proteases, DNase, and RNase activity.

Selected References:

- O'Donnell *et al.* (2005) c-Myc-regulated microRNAs modulate E2F1 expression. *Nature*. **435**:839.
Bagchi *et al.* (1990) Adenovirus E1A proteins can dissociate heteromeric complexes involving the E2F transcription factor: a novel mechanism for E1A trans-activation. *Cell* **62**:659.
Helin *et al.* (1992) A cDNA encoding a pRB-binding protein with properties of the transcription factor E2F. *Cell* **70**:337.
Kaelin *et al.* (1992) Expression cloning of a cDNA encoding a retinoblastoma-binding protein with E2F-like properties. *Cell* **70**:351.
Shan *et al.* (1992) Molecular cloning of cellular genes encoding retinoblastoma-associated proteins: identification of a gene with properties of the transcription factor E2F. *Mol. Cell. Biol.* **12**:5620.
Chellappan *et al.* (1991) The E2F transcription factor is a cellular target for the RB protein. *Cell* **65**:1053.
Schwarz *et al.* (1993) Interactions of the p107 and Rb proteins with E2F during the cell proliferation response. *EMBO J.* **12**:1013.