

α -Dr1

anti-Down-regulator of Transcription 1
rabbit, polyclonal

Cat. No.	Amount
ABD-011	50 μ g

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in PBS.

Description

Dr1 is a general negative regulator of class II and class III gene expression. It binds to the basic repeat domain of TBP on promoter DNA and can prevent the RNA polymerase II holoenzyme, or its TFIIB and/or TFIIA subunits, from assembling into an initiation complex. Dr1 is phosphorylated *in vivo* and this modification affects its interaction with TBP. In addition, Dr1 interacts with the hyperphosphorylated form of Pol II and with the repression domain of the AREB6 repressor. Dr1 forms a heterodimer complex with DRAP1 through its histone fold domain. More recently it was discovered that Dr1-DRAP1 is a bi-functional basal transcription factor that differentially regulates gene transcription through DPE (downstream promoter elements) or TATA box motifs. It can stimulate transcription *in vitro* from *Drosophila* promoters containing DPEs, whereas it represses transcription from TATA-containing promoters.

α -Dr1 is an affinity-purified rabbit polyclonal antibody raised against a recombinant full-length Dr1 protein.

Specificity

α -Dr1 reacts with the Dr1 protein in HeLa nuclear extract (cat.# PR-777) by Western blotting. Recommended dilution range for Western blot analysis: 1:2000 - 1:5000.

Selected References:

- Inostroza et al. (1992) *Cell* **70**:477.
- White et al. (1994) *Science* **266**:448.
- Mermelstein et al. (1996) *Genes Dev.* **10**:1033.
- Kim et al. (1995) *J. Biol. Chem.* **270**:10976.
- Castano et al. (2000) *Proc. Natl. Acad. Sci. USA* **97**:7184.
- Ikeda et al. (1998) *Mol. Cell. Biol.* **18**:10.
- Goppelt et al. (1996) *EMBO J.* **15**:3105.
- Willy et al. (2000) *Science* **290**:982.