

293 cell nuclear extract for *in vitro* pre-mRNA splicing human

Cat. No.	Amount
PR-779	200 μ l

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

1-5 μ l is sufficient for a gel mobility shift assay in a 20 μ l reaction, 5-10 μ l is sufficient for *in vitro* splicing assay and 20-50 μ l is sufficient for a protein-protein interaction assay.

Application

The 293 cell nuclear extract is specifically recommended for 1) *in vitro* splicing, 2) protein-DNA/RNA and protein-protein interactions, and 3) source of individual splicing factors.

Purity

> 95% by SDS-PAGE.

Description

The 293 cell nuclear extract was prepared essentially as described. Although this extract contains all basal transcription factors, as well as most gene-specific activators and cofactors, it is prepared for the purpose of pre-mRNA splicing, especially for cell-specific polyadenylation, DNA replication and pre-mRNA splicing. 293 cell nuclear extract has been used as the source of individual splicing factors (such as ASF/SF2) and for the cell free system to study the mechanism of pre-mRNA processing.

The 293 cell nuclear extract is specifically recommended for 1) *in vitro* splicing, 2) protein-DNA/RNA and protein-protein interactions and 3) source of individual splicing factors. Although this extract also contains most transcription factors, it is not recommended for *in vitro* transcription assays.

Selected References:

- Noble *et al.* (1987) Splicing of SV40 early pre-mRNA to large T and small t mRNAs utilizes different patterns of lariat branch sites. *Cell* **50**:227.
- Krainer *et al.* (1984) Normal and mutant human beta-globin premRNAs are faithfully and efficiently spliced *in vitro*. *Cell* **36**:993.
- Ge *et al.* (1990) A protein factor, ASF, controls cell-specific alternative splicing of SV40 early pre-mRNA *in vitro*. *Cell* **62**:25.
- Lewis *et al.* (1985) Repression of simian virus 40 early transcription by viral DNA replication in human 293 cells. *Nature* **317**:172.
- Fu *et al.* (1987) Factors influencing alternative splice site utilization *in vivo*. *Mol. Cell. Biol.* **7**:738.
- Fu *et al.* (1988) The role of the polypyrimidine stretch at the SV40 early pre-mRNA 3' splice site in alternative splicing. *EMBO J.* **7**:809.