Data sheet

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Jena Bioscience

p75-CTR
C-terminal region of p75 (LEDGF)
human, recombinant, *E. coli*

Cat. No.	Amount
PR-758	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
20 ng are sufficient for an *in vitro* transcription assay and 100 ng are sufficient for a protein-protein interaction assay.

Molecular Weight
30 kDa

Purity
> 95% by SDS-PAGE

Description
Lens Epithelium-derived Growth Factor (LEDGF, also called as p75) has been shown to enhance survival of lens epithelial cells (LECs) against stress. LEDGF is a transcriptional activator. It protects the cells by binding to cis-stress response ((A/T)GGGG(T/A)), and heat shock (HSE; nGAAn) elements in the stress genes and activating their transcription. Originally, it was isolated as a co- activator required for transcriptional activation in human cell-free systems containing RNA Polymerase II and general initiation factors. LEDGF is expressed at all stages of development in a variety of organs and tissues. A second protein product, p52, can be produced from the same gene due to alternative splicing of pre-mRNA. *In vitro*, p52 was found to be more general and stronger transcriptional co-activator than LEDGF/p75. HIV-1 integrase (IN) forms a specific nuclear complex with p75 but not with p52, suggesting a role for p75's C-terminal region in retroviral integration.
Recombinant p75 CTR is isolated from an *E. coli* strain that carries the C-terminal coding sequence of the human LEDGF/p75 (amino acid 322-530) under the control of a T7 promoter.
p75 has been applied in *in vitro* transcription assays, splicing assays, DNA and protein-protein interaction assays.
The purified recombinant protein is greater than 95% homogeneous and contains no detectable protease, DNase, and RNase activity.

Selected References:

Fatma *et al.* (2001) Transcriptional regulation of the antioxidant protein 2 gene, a thiol-specific antioxidant, by lens epithelium-derived growth factor to protect cells from oxidative stress. *J.Biol.Chem.* **276**:48899.
Singh *et. al.* (2001) LEDGF binds to heat shock and stress-related element to activate the expression of stress-related genes. *Biochem. Biophys. Res. Commun.* **283**:943.
Ge *et al.* (1998) Isolation of cDNAs encoding novel transcription coactivators p52 and p75 reveals an alternate regulatory mechanism of transcriptional activation. *EMBO J.* **17**:6723.
Maertens *et al.* (2003) LEDGF/p75 is essential for nuclear and chromosomal targeting of HIV-1 integrase in human cells. *J. Biol. Chem.* **278**:33528.