E. coli LexA repressor, functional

Product code	01-005 01-006
Size	20μg 100μg
Storage	-80℃. Avoid freeze-thaw cycles.
Product Description	Recombinant full-size LexA repressor protein without tag.
Concentration	1 mg/ml
Buffer	50% glycerol, 10 mM Tris-HCl (pH 7.5), 2 mM EDTA, 100 mM NaCl, 1 mM DTT
Purity	Over 90% by SDS-PAGE (CBB staining)
Biochemical Activity	See Background
Application	1. Functional studies on the mechanism of *E. coli* SOS response. This product binds to SOS box in vitro and repress the expression of the genes belonging to SOS regulon. 2. WB. Used as an antigen for positive control in Western blotting to confirm that the Bait construct is expressed stably in the yeast two-hybrid method using the *lexA* gene. See also antibody to LexA repressor protein (#61-001) 3. Chromatin immuno-precipitation in combination with anti-LexA repressor antibody (#61-001)
Special notes	**It may undergo some degrees of self-cleavage.**
Background	*E. coli* LexA repressor protein inhibits the transcription of the genes belonging to the SOS regulon that are related to DNA repair and cell division by recognizing and binding to the SOS-box sequence (TA**CTGT**ATATATATA**CAG**TA). LexA repressor's self-protease activity is promoted by RecA protein which, responding to DNA damage, is activated by its binding to single-strand DNA accumulated in the cells. It is cleaved into two fragments and loses its function as a repressor. As a result, the expression of genes belonging to the SOS regulon is induced, and DNA repair ability and mutagenic activity in the cells are enhanced (1).
Data Link	UniProKB P0A7C2 (LEXA_ECOLI)

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

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Data Images: 01-005, 01-006 *E. coli* LexA repressor, functional

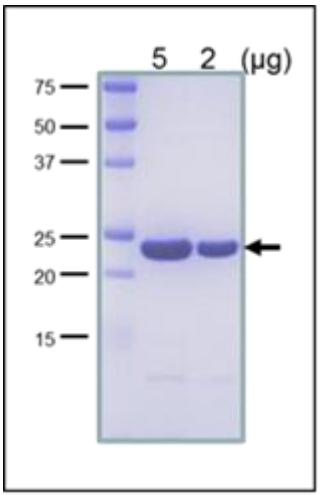

Figure. SDS-PAGE analysis of the purified LexA repressor protein.

Reference: This protein was described and used in the following publication.

1. Walker GC "Understanding the complexity of an organism's responses to DNA damage." (2000) PMID: 12760015

2. Sambrook J & Russell DW Molecular Cloning 3rd Ed. Chapter 18.17-18.27 Cold Spring Harber Laboratory Press (2001)

Related Products:

61-001 61-002 Anti-*E.coli* LexA repressor antibody, rabbit serum

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