



Catalog No. 61-001EX

Anti-LexA antibody, rabbit polyclonal, Chlp grade

BACKGROUND

E. coli LexA protein binds specifically to the SOS-box sequence and represses the genes belonging to the SOS regulon. In response to DNA damage, RecA protein is activated by ss-DNA accumulated in the damaged cells and promotes autocleavage of LexA repressor by its coprotease activity. As a result, DNA repair genes and error prone polymerases are induced, and DNA damage is repaired and mutation is induced (1).

The *lexA* gene is used for yeast two-hybrid experiments as a bait to identify the protein-protein interaction in vivo (2).

This product was prepared by immunizing rabbit with full-size highly-purified recombinant LexA protein. Using this antibody, 23 kD LexA protein was identified in the *E. coli* whole-cell lysate (Fig 1) and the expression of bait constructs was identified in yeast extracts by Western blotting.

Applications

- 1) Studies on the SOS regulation in *E. coli* (3). For Western blotting; 1000~3000 fold dilution.
- 2) Construction and expression of a bait protein fused to LexA protein can be examined by Western blotting of the yeast extracts, using the antiserum.

Purified LexA protein is available (#01-002EX) to be used as a positive control for Western blotting.

- 3) Immunohistochemistry (LexA fusion protein was detected in transgenic *Drosophila* after fixation with 4% formaldehyde.)
- 4) Immunoprecipitation and chromatin immuno-precipitation

Form: antiserum added with 0.05% sodium azide

Size: 50 ul

Storage: Shipped at 4°C or -20°C and stored at -20°C

Data Link UniProtKB/Swiss-Prot [P0A7C2](#) (LEXA_ECOLI)

References: This antibody has been used in Ref 3.

1. Friedberg EC *et al* *DNA Repair and Mutagenesis* 2nd Ed., ASM Press (2005)
2. Sambrook J & Russell DW *Molecular Cloning* 3rd Ed. Cold Spring Harbor Press (2001)
3. Hishida T *et al* "Role of the *Escherichia coli* RecQ DNA helicase in SOS signaling and genome stabilization at stalled replication forks" *Genes Dev* 18: 1886-1897 (2004) PMID: [15289460](#)

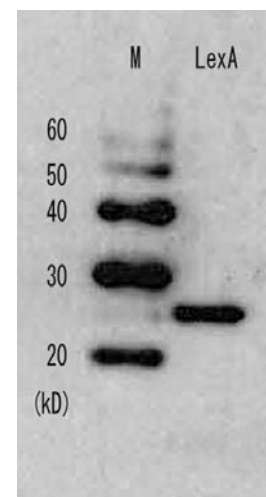


Fig.1 Detection of LexA repressor in the *E. coli* whole cell lysate by this antiserum

Related product: [#01-005EX](#) *E. coli* LexA protein, functional