

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

Product code	61-001 61-002
Size	50 µl 250 µl
Storage	Store at 4°C for short term. For long term storage store at -20°C. Aliquot to avoid repeated freezing thawing.
Concentration	N/A
Buffer	0.05% sodium azide
Purity	Rabbit antiserum
Immunogen	Purified Recombinant LexA repressor protein
Isotype	Rabbit IgG
Reactivity	<i>E.coli</i> .
Special notes	N/A
Application	<p>1. Studies on the SOS regulation in <i>E .coli</i> (3). For Western blotting; 1000~3000 fold dilution.</p> <p>2. Construction and expression of a bait protein fused to LexA repressor protein can be examined by Western blotting of the yeast extracts,using the antiserum.</p> <p>Purified LexA repressor protein is available from BioAcademia (#01-005, -006) to be used as a positive control for Western blotting.</p> <p>3. Immunohistochemistry (LexA repressor fusion protein was detected in transgenic Drosophila after fixation with 4% formalodehyde.)</p> <p>4. Immunoprecipitation and chromatin immuno-precipitation</p>
Background	<p><i>E. coli</i> LexA repressor 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).</p> <p>The <i>lexA</i> gene is used for yeast two-hybrid experiments as a bait to identify the protein-protein interaction in vivo (2).</p> <p>This product was prepared by immunizing rabbit with full-size highly-purified recombinant LexA repressor protein. Using this antibody, 23 kD LexA protein was identified in the <i>E. coli</i> whole-cell lysate (Fig 1) and the expression of bait constructs was identified in yeast extracts by Western blotting.</p>
Data Link	UniProtKB P0A7C2 (LEXA_ECOLI)

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

Data Images: 61-001 Anti-*E.coli* LexA antibody, rabbit serum

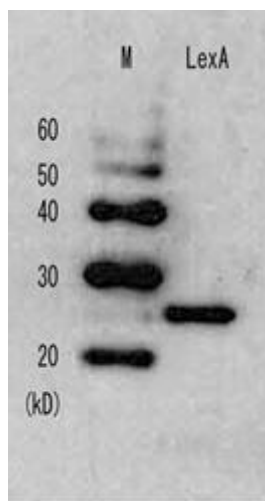


Fig.1 Detection of LexA repressor in the *E. coli* whole cell lysate by this antiserum

References: This antibody has been used in Ref 3.

1. Friedberg EC *et al DNA Repair and Mutagenesis* 2nd Ed., ASM Presss (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 DNAhelicase in SOS signaling and genome stabilization at stalled replication forks" *Genes Dev* **18**: 1886-1897 (2004) PMID: [15289460](https://pubmed.ncbi.nlm.nih.gov/15289460/)

Related product:

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|--------------|--|
| 61-021 | Anti- <i>E.coli</i> LexA antibody, rabbit polyclonal |
| 01-005, -006 | <i>E.coli</i> LexA repressor |