

## Anti-LexA antibody, rabbit polyclonal, ChIp grade

61-001 50ul, 61-002 250ul

*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 from BioAcademia (#01-002) 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

**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* 2<sup>nd</sup> Ed., ASM Press (2005)
2. Sambrook J & Russell DW *Molecular Cloning* 3<sup>rd</sup> 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](#)

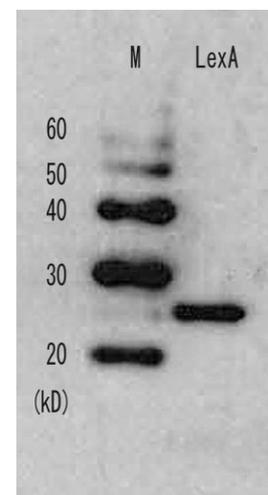


Fig.1 Detection of LexA repressor in the *E. coli* whole cell lysate by this antiserum

**Related product:** #01-005 *E. coli* LexA protein, functional