Bio Academia
Manufacturer

AS ONE

Anti-LexA antibody, rabbit serum, ChIp grade

Immunized Animal: Rabbit
Polyclonal antiserum

Cat. # 61-001, 50 µl # 61-002, 250 µl

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 the results, 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 blot.

Applications

1) Studies on the SOS regulation in E. coli (3). For Western blot: 1000~3000 fold dilution.
2) Construction and expression of a bait protein fused to LexA protein can be examined by Western blot of yeast extracts, using the antiserum.
3) Immunohistochemistry (LexA fusion protein expressed in transgenic Drosophila after fixation with 4% formaldehyde.)
4) Immunoprecipitation and chromatin immunoprecipitation

Specifications

Form: antiserum added with 0.05% sodium azide.

Storage: Ship at 4°C and stored at –20°C

Data Link UniProtKB/Swiss-Prot P0A7C2 (LEXA_ECOLI)

Reference:

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., Genes Dev. 18, 1886-1897 (2004)

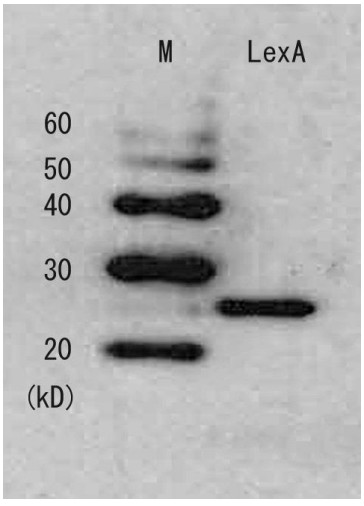

Fig.1 Detection of LexA repressor in the whole cell lysate of *E. coli* using antiserum