Bio Academia
Manufacturer

AS ONE

Anti-RuvA antibody, rabbit polyclonal antiserum

61-005 100 µl

E. coli RuvA protein binds specifically to the Holliday structure which is the intermediate of recombination at the late stage of homologous recombination and recombination repair, and forms a complex with RuvB motor protein, allowing the migration of Holliday junction using ATP hydrolysis energy and expands the heteroduplex region. In solution, it forms a tetramer and binds to the cross-like DNA of the Holliday junction from below and above, holding it in between (1, 2). Using this antiserum in Western blot, the band of 22kD corresponding to RuvA was obtained from the extract of *E. coli* cells (Fig.1).

Applications

1) ELISA
2) Western blot x 3,000 dilution (Fig.1)
Other applications have not been tested.

Specification

Immunogen: Purified full-size recombinant RuvA protein (Ref. 2)
Form: Antiserum with 0.05% sodium azide
Storage: 4°C for short storage of 6 months. For long term storage, store at -80°C

DataLink: UniProtKB/Swiss-Prot **P0A809** (RUVA_ECOLI)

References

1. Shinagawa H and Iwasaki H (1996) “Processing the holliday junction in homologous recombination” *Trends Biochem Sci* 21:107-111PMID: 8882584
2. Iwasaki H *et al* (1992) “Escherichia coli RuvA and RuvB proteins specifically interact with Holliday junctions and promote branch migration” *Genes Dev* 6:2214-2220 PMID: 1427081

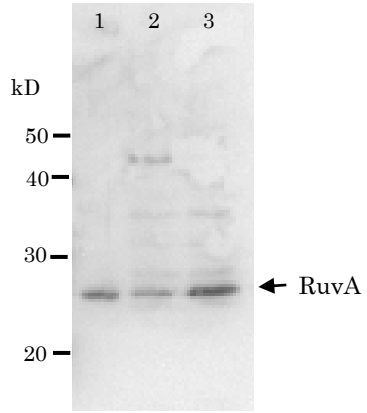

Fig. 1. Detection of RuvA (22kD) protein by Western blot using this antibody.
Lane 1: RuvA protein 0.8ng
Lane 2: *E. coli* AB1157 crude extract
Lane 3: *E. coli* AB1157 *lexA* mutant crude extract
Expression of RuvA is enhanced by *lexA* mutation.