E. coli RuvA Protein

01-007 20 μg, 01-008 100 μg

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).

The product is a recombinant protein abundantly expressed by *E. coli* and purified by methods such as chromatography (Fig. 1). The molecular weight is 22 kD and even in solution, it binds to the Holliday structure and form a tetramer.

Usage

1) Studies on homologous recombination mechanism.
2) For SNP analysis (3).
3) Incorporation to DNA circuit.
4) Recognition and identification of cross-like DNA.

Specification

Purity: RuvA protein over 90% by SDS-PAGE (CBB staining)
Concentration: 2.7 mg/ml (determined by BCA method)
Form: 50% glycerol, 10 mM Tris-HCl (pH7.5), 2 mM EDTA, 100 mM NaCl,
5 mM mercaptoethanol
Storage: -20C

Reference:

1. Shinagawa H and Iwasaki H, Trend Biochem. Sci. 21:107 (1996)
2. Iwasaki H et al. Genes Dev 6:2214 (1992)
3. Yang Q at al. Genome Research 13:1754 (2003)

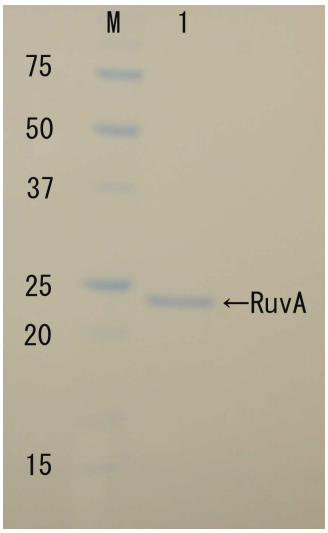

Fig. 1 Polyacrylamide gel electrophoresis of RuvA protein.

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