E. coli RuvB Protein

01-009 20 μg, 01-010 100 μg

E. coli RuvB protein forms a complex with RuvA protein at the late stage of homologous recombination and recombination repair and binds specifically to the Holliday structure which is the intermediate of recombination, allowing the migration of Holliday junction using ATP hydrolysis energy and expands the heteroduplex region. RuvB forms a hexamer ring structure and surrounds the double chain DNA and covers RuvA tetramer bound to the Holliday junction from both sides. RuvB is a DNA motor protein which possesses the ATPase activity, activated by DNA and RuvA protein (1, 2). Its molecular weight is 37 kD and forms a dimer in solution in the physiological condition .

The product is a recombinant protein abundantly expressed by *E. coli* and purified by methods such as chromatography (Fig. 1).

Usage

1) Studies on homologous recombination mechanism.
2) To make use of the motor protein function that specifically migrates the Holliday junction by forming a complex with RuvA (branch-migration protein).

Specification

Purity: RuvB protein over 90% by SDS-PAGE (CBB staining)

Concentration: 1.0 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)

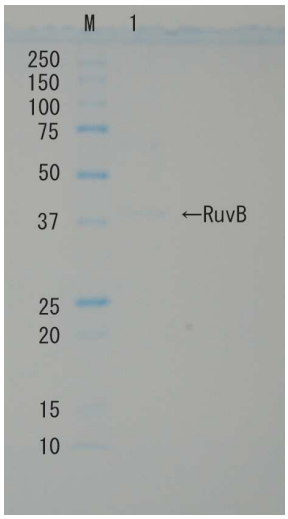

Fig. 1 Polyacrylamide gel electrophoresis of RuvB protein.

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