BACKGROUND

In Escherichia coli, the RuvA, RuvB and RuvC proteins are required for the late stages of homologous recombination and DNA repair and are involved in processing the Holliday junctions. The RuvA protein binds both single-stranded and double-stranded DNA. Once bound to DNA, RuvA greatly enhances RuvB ATPase activity; UV-irradiation further enhances the stimulatory effect of RuvA on RuvB ATPase activity. RuvA and RuvB both promote branch migration independently, while the RuvA-RuvB complex interacts with irregular conformations in damaged DNA, induces conformational changes in DNA using ATP, facilitates DNA repair and aids in recombination and error prone replication. RuvABC proteins are also responsible for the occurrence of DSBs at arrested replication forks.

REFERENCES


SOURCE

RuvB (4G5/1) is a mouse monoclonal antibody raised against RuvB protein from E. Coli.

PRODUCT

Each vial contains 200 µg IgG1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

RuvB (4G5/1) is recommended for detection of RuvB of E. coli origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1–2 µg per 100–500 µg of total protein (1 ml of cell lysate)].

Molecular Weight of RuvB: 37 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2033 (0.5 ml agarose/2.0 ml).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

RESEARCH USE

For research use only, not for use in diagnostic procedures.