SANTA CRUZ BIOTECHNOLOGY, INC.

RuvA (12C6): sc-53435

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The Power to Question

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 ATPaes 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

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5. Ingleston, S.M., et al. 2002. Holliday junction binding and processing by the RuvA protein of *Mycoplasma pneumoniae*. Eur. J. Biochem. 269: 1525-1533.
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7. Lee, Y.C., et al. 2003. A tetramer-octamer equilibrium in *Mycobacterium leprae* and *Escherichia coli* RuvA by analytical ultracentrifugation. J. Mol. Biol. 333: 677-682.
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SOURCE

RuvA (12C6) is a mouse monoclonal antibody raised against RuvA protein from *E. coli*.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RuvA (12C6) is available conjugated to agarose (sc-53435 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-53435 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53435 PE), fluorescein (sc-53435 FITC), Alexa Fluor® 488 (sc-53435 AF488), Alexa Fluor® 546 (sc-53435 AF546), Alexa Fluor® 594 (sc-53435 AF594) or Alexa Fluor® 647 (sc-53435 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53435 AF680) or Alexa Fluor® 790 (sc-53435 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

RuvA (12C6) is recommended for detection of RuvA 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 RuvA: 22 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

RESEARCH USE

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

PROTOCOLS

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