PRODUCT DATA SHEET

Product: Anti-RuvB (Holliday Junction Protein), clone 4G5/1

Cat. No.: **MC-298 (100 µg)**

Background:
In Escherichia coli, the RuvA, RuvB and RuvC proteins are required for the late stages of homologous recombination and DNA repair. They are involved in processing the Holliday junction during homologous recombination. RuvA protein binds to both single-stranded and double-stranded DNA. RuvB protein has weak ATPase activity. RuvA bound to DNA greatly enhances ATPase activity of RuvB. UV-irradiation to supercoiled DNA further enhances the stimulatory effect of RuvA on the RuvB ATPase activity. In the presence of ATP the RuvA-RuvB complex has an activity that renatures cruciform structures formed by heating and gradually cooling supercoiled DNA with an inverted repeat. RuvA and RuvB promote branch migration whereas RuvC resolves junctions by endonucleolytic cleavage. Moreover RuvAB stimulate Holliday junction resolution by RuvC. The RuvA-RuvB complex interacts with an irregular conformation in damaged DNA and induces conformational changes in DNA using energy provided by ATP hydrolysis, so that it facilitates DNA repair, recombination and error prone replication. RuvABC proteins are responsible for the occurrence of DSBs at arrested replication forks. In cells proficient for RecBC, RuvAB is uncoupled from RuvC and DSBs may be prevented.

Specificity:
This antibody recognizes a protein of 37 kDa which is identified as the RuvB.

Species Reactivity:
E. coli. Others not tested.

Ig Isotype:
$IgG_{1/\kappa}$

Immunogen:
RuvB protein from *E. coli*.

Positive Control:
Recombinant RuvB protein.

Format:
200 µg/mL of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10 mM PBS, pH 7.4, with protein stabilizer and 15 mM sodium azide.

Storage:
Store at 4℃.

Applications and Suggested Dilutions:
- Western blotting: Use antibody at 1-2 µg/mL for 2 hrs. at RT

The optimal dilution for a specific application should be determined by the researcher.

Limitations:
For *in vitro* research use only. Not for use in diagnostics or in humans.

Warranty:
No warranties, expressed or implied, are made regarding the use of this product. KAMIYA BIOMEDICAL COMPANY is not liable for any damage, personal injury, or economic loss caused by this product.