# abcam

## Product datasheet

# Recombinant E. coli RuvC protein (Active) ab63828

3 References 1 Image

**Description** 

Product name Recombinant E. coli RuvC protein (Active)

**Purity** > 90 % SDS-PAGE.

Expression system Escherichia coli

Accession P0A814

Protein length Full length protein

Animal free No

Nature Recombinant

Species Escherichia coli

**Sequence** MAILGIDPGSRVTGYGVIRQVGRQLSYLGSGCIRTKVDD

LPSRLKLIYAGVTEIITQFQPDYFAIEQVFMAKNADSALKLG

QARGVAIV

AAVNQELPVFEYAARQVKQTVVGIGSAEKSQVQHMVRTL

**LKLPANPQADA** 

ADALAIAITHCHVSQNAMQMSESRLNLARGRLR

**Description** Recombinant *E. coli* RuvC protein (Active)

**Specifications** 

Our Abpromise guarantee covers the use of ab63828 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Western blot

ELISA

**Functional Studies** 

Form Liquid

**Additional notes** 

ab63828 can be used for: 1) Studies on the homologous recombination mechanism. 2) To use as

an endonuclease which functions specifically to the Holliday structure.

#### Preparation and Storage

#### Stability and Storage

Shipped at 4°C. Store at -20°C or -80°C. Stable for 12 months at -20°C.

pH: 6

Constituents: 0.039% Beta mercaptoethanol, 0.158% Tris HCl, 0.0584% EDTA, 50% Glycerol (glycerin, glycerine), 0.58% Sodium chloride

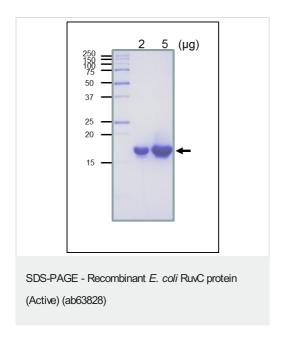
This product is an active protein and may elicit a biological response in vivo, handle with caution.

#### **General Info**

#### Relevance

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 and enhances ATPase activity of RuvB. 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.

#### **Images**



SDS-PAGE analysis of Recombinant *E. coli* RuvC protein (ab63828).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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