

Datasheet for ABIN5710636

XRCC5 Protein (AA 251-455, partial) (His tag)[Go to Product page](#)**1** Image

Overview

Quantity:	100 µg
Target:	XRCC5
Protein Characteristics:	partial, AA 251-455
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This XRCC5 protein is labelled with His tag.
Application:	SDS-PAGE (SDS)

Product Details

Sequence:	LTIGSNLSIR IAAYKSILQE RVKKTWTVVD AKTLKKEDIQ KETVYCLNDD DETEVLKEDI IQGFRYGSDI VPFSKVDEEQ MKYKSEGKCF SVLGFCCKSSQ VQRRFFMGNQ VLKVFAARDD EAAVALSSL IHALDDLDMV AIVRYAYDKR ANPQVGVAFP HIKHNYECLV YVQLPFMEDL RQYMFSSLKN SKKYAPTEAQ LNAVD
Purification:	SDS-PAGE
Purity:	> 90 %

Target Details

Target:	XRCC5
Alternative Name:	XRCC5 (XRCC5 Products)
Background:	Single-stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome

Target Details

translocation. The DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 dimer acts as regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA by 100-fold. The XRCC5/6 dimer is probably involved in stabilizing broken DNA ends and bringing them together. The assembly of the DNA-PK complex to DNA ends is required for the NHEJ ligation step. In association with NAA15, the XRCC5/6 dimer binds to the osteocalcin promoter and activates osteocalcin expression. The XRCC5/6 dimer probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5-phosphate at an abasic site near double-strand breaks. XRCC5 probably acts as the catalytic subunit of 5'-dRP activity, and allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription.

Molecular Weight:	27.53 kDa
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UniProt:	P13010
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Pathways:	DNA Damage Repair
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Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
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Restrictions:	For Research Use only
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Handling

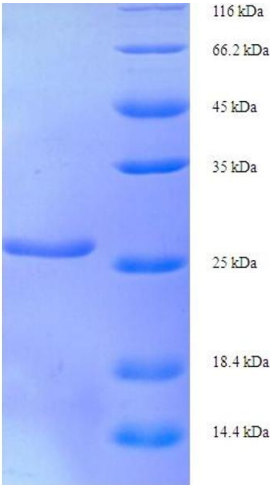
Format:	Liquid
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Concentration:	0.1-2 mg/mL
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Buffer:	20 mM Tris-HCl based buffer, pH 8.0
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Storage:	-80 °C, 4 °C, -20 °C
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Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
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SDS-PAGE

Image 1.