

## Recombinant Human XRCC5 protein, His-tagged

**Cat. No.** XRCC5-8228H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human XRCC5 aa. (Val2~Ser460) fused with N-terminal His tag was produced in E. coli cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>    | Val2~Ser460                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | <p>The protein encoded by this gene is the 80-kilodalton subunit of the Ku heterodimer protein which is also known as ATP-dependant DNA helicase II or DNA repair protein XRCC5. Ku is the DNA-binding component of the DNA-dependent protein kinase, and it functions together with the DNA ligase IV-XRCC4 complex in the repair of DNA double-strand break by non-homologous end joining and the completion of V(D)J recombination events. This gene functionally complements Chinese hamster xrs-6, a mutant defective in DNA double-strand break repair and in ability to undergo V(D)J recombination. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity.</p> |
| <b>Form</b>             | Freeze-dried powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Molecular Mass</b>   | 56kDa as determined by SDS-PAGE reducing conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Endotoxin</b>        | <1.0EU per 1ug (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | >85%                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Characteristic</b> | The isoelectric point is 5.6.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Applications</b>   | Positive Control; Immunogen; SDS-PAGE; WB.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Stability</b>      | The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition. |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.                                                                                                                                                                                                                                                                                                                                                                |
| <b>Concentration</b>  | 200µg/mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Buffer</b> | 100mM NaHCO <sub>3</sub> , 500mM NaCl, pH8.3, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                  |
| <b>Reconstitution</b> | Reconstitute in 100mM NaHCO <sub>3</sub> , 500mM NaCl (pH8.3) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                                                                                                                                                                                                                                                                                                                                                         |

## GENE INFORMATION

|                        |                                                                           |
|------------------------|---------------------------------------------------------------------------|
| <b>Gene Name</b>       | XRCC5 X-ray repair cross complementing 5 [ Homo sapiens (human) ]         |
| <b>Official Symbol</b> | XRCC5                                                                     |
| <b>Synonyms</b>        | XRCC5; X-ray repair cross complementing 5; KU80; KUB2; Ku86; NFIV; KARP1; |

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KARP-1; X-ray repair cross-complementing protein 5; 86 kDa subunit of Ku antigen; ATP-dependent DNA helicase 2 subunit 2; ATP-dependent DNA helicase II 80 kDa subunit; CTC box-binding factor 85 kDa subunit; CTC85; CTCBF; DNA repair protein XRCC5; Ku autoantigen, 80kDa; Ku86 autoantigen related protein 1; TLAA; X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining); lupus Ku autoantigen protein p86; nuclear factor IV; thyroid-lupus autoantigen

**Gene ID** [7520](#)

**mRNA Refseq** [NM\\_021141.3](#)

**Protein Refseq** [NP\\_066964.1](#)

**UniProt ID** [P13010](#)

**SDS-PAGE**

