



# XRCC1 Polyclonal Antibody

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| <b>Catalog No</b>         | BYab-17046                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Isotype</b>            | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Reactivity</b>         | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Applications</b>       | WB;IHC;IF;ELISA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Gene Name</b>          | XRCC1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Name</b>       | DNA repair protein XRCC1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Immunogen</b>          | The antiserum was produced against synthesized peptide derived from human XRCC1. AA range:517-566                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | XRCC1 Polyclonal Antibody detects endogenous levels of XRCC1 protein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Formulation</b>        | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>             | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purification</b>       | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Dilution</b>           | WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/10000.. IF 1:50-200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Concentration</b>      | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity</b>             | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage Stability</b>  | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Synonyms</b>           | XRCC1; DNA repair protein XRCC1; X-ray repair cross-complementing protein 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Observed Band</b>      | 70kD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Cell Pathway</b>       | Nucleus . Moves from the nucleoli to the global nuclear chromatin upon DNA damage. .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Tissue Specificity</b> | Expressed in fibroblasts, retinal pigmented epithelial cells and lymphoblastoid cells (at protein level).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Function</b>           | function:Corrects defective DNA strand-break repair and sister chromatid exchange following treatment with ionizing radiation and alkylating agents.,polymorphism:Carriers of the polymorphic Gln-399 allele may be at greater risk for tobacco- and age-related DNA damage.,PTM:Phosphorylation of Ser-371 causes dimer dissociation. Phosphorylation by CK2 promotes interaction with APTX and APLF.,PTM:Sumoylated.,similarity:Contains 2 BRCT domains.,subcellular location:Accumulates at sites of DNA damage.,subunit:Homodimer. Interacts with polynucleotide kinase (PNK), DNA polymerase-beta (POLB) and DNA ligase III (LIG3). Interacts with APTX and APLF., |

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**Background**

The protein encoded by this gene is involved in the efficient repair of DNA single-strand breaks formed by exposure to ionizing radiation and alkylating agents. This protein interacts with DNA ligase III, polymerase beta and poly (ADP-ribose) polymerase to participate in the base excision repair pathway. It may play a role in DNA processing during meiosis and recombination in germ cells. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity. [provided by RefSeq, Jul 2008],

**matters needing attention**

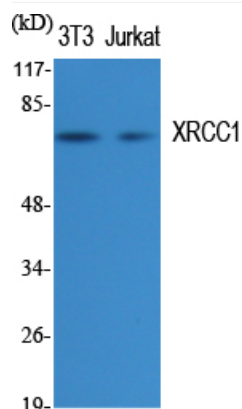
Avoid repeated freezing and thawing!

**Usage suggestions**

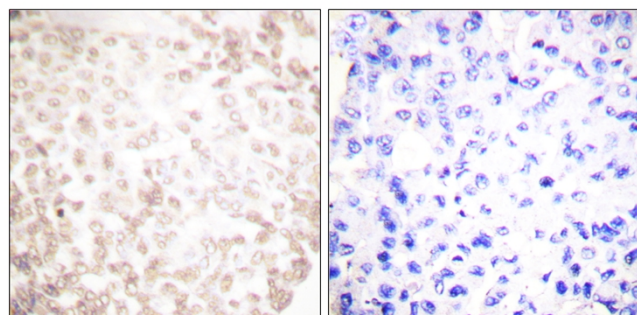
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



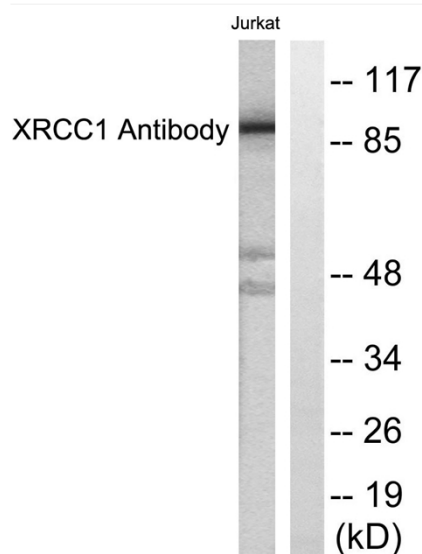
## Products Images



Western Blot analysis of various cells using XRCC1 Polyclonal Antibody diluted at 1:1000. Secondary antibody(catalog#:RS0002) was diluted at 1:20000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using XRCC1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from Jurkat cells, using XRCC1 Antibody. The lane on the right is blocked with the synthesized peptide.

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