

## Basic Information

|                           |  |
|---------------------------|--|
| <b>Product Name</b>       | Anti-XRCC1 Antibody  |
| <b>Gene Name</b>          | XRCC1  |
| <b>Source</b>             | Rabbit   |
| <b>Clonality</b>          | Polyclonal   |
| <b>Isotype</b>            | IgG  |
| <b>Species Reactivity</b> | human, mouse, rat  |
| <b>Tested Application</b> | WB, IHC, ICC/IF  |
| <b>Contents</b>           | 500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.  |
| <b>Immunogen</b>          | A synthetic peptide corresponding to a sequence at the N-terminus of human XRCC1, identical to the related mouse sequence, and different from the related rat sequence by one amino acid.  |
| <b>Concentration</b>      | 500 ug/ml  |
| <b>Purification</b>       | Immunogen affinity purified.   |
| <b>Observed MW</b>        | 90 kDa   |
| <b>Dilution Ratios</b>    | Western blot (WB): 1:500-2000<br>Immunohistochemistry (IHC): 1:50-400<br>Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400<br>(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. |

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

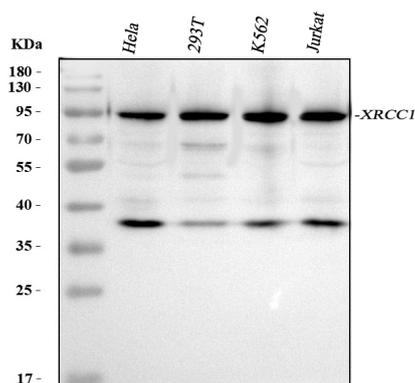
XRCC1(X-RAY REPAIR, COMPLEMENTING DEFECTIVE, IN CHINESE HAMSTER, 1) is a DNA repair protein which complexes with DNA ligase III. The protein encoded by this gene is involved in the efficient repair of DNA single-strand breaks formed by exposure to ionizing radiation and alkylating agents. The XRCC1 gene is mapped to 19q13.31. The XRCC1 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. XRCC1 is phosphorylated in vivo and in vitro by CK2, and CK2 phosphorylation of XRCC1 on ser518, thr519, and thr523 largely determines aprataxin binding to XRCC1 through its FHA domain.

## Reference

Anti-XRCC1 Antibody被引用在1文献中。

## Selected Validation Data



Western blot analysis of XRCC1 using anti-XRCC1 antibody (BA3670). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HeLa whole cell lysates,

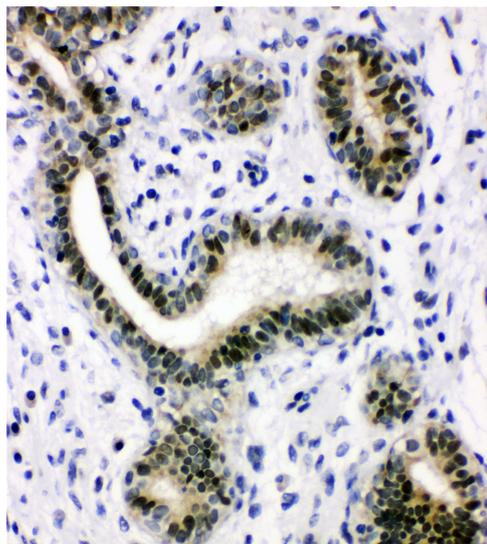
Lane 2: 293T whole cell lysates,

Lane 3: K562 whole cell lysates,

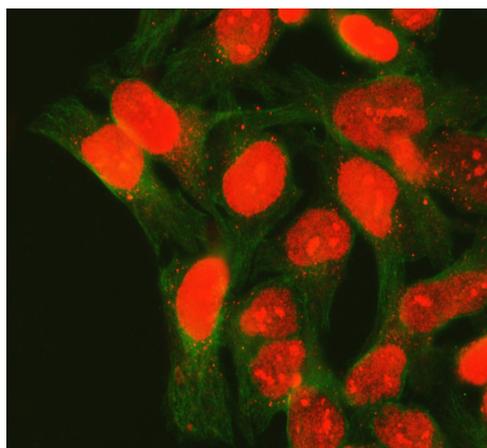
Lane 4: Jurkat whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-XRCC1 antigen affinity purified polyclonal antibody (BA3670) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for XRCC1 at approximately 90 kDa. The expected band size for XRCC1 is at 69 kDa.



IHC analysis of XRCC1 using anti-XRCC1 antibody (BA3670). XRCC1 was detected in a paraffin-embedded section of human mammary cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-XRCC1 Antibody (BA3670) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of XRCC1 using anti-XRCC1 antibody (BA3670) and anti-Beta Tubulin antibody (M01857-3). XRCC1 was detected in an immunocytochemical section of HeLa cells. The section was incubated with rabbit anti-XRCC1 Antibody (BA3670) at a dilution of 1:100. Cy3-Conjugated Anti-rabbit IgG Secondary Antibody (Red) (Catalog # BA1032) and Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (Green) (Catalog # BA1126) were used as secondary antibody.