

Datasheet for ABIN5693138
anti-XRCC1 antibody (AA 538-633)

5 Images

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Overview

Quantity:	100 µg
Target:	XRCC1
Binding Specificity:	AA 538-633
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human XRCC1 recombinant protein (Position: E538-A633).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for XRCC1 detection. Tested with WB, IHC-P, Direct ELISA in Human, Mouse, Rat.

Target Details

Target:	XRCC1
Alternative Name:	XRCC1 (XRCC1 Products)
Background:	Synonyms: DNA repair protein XRCC1, X-ray repair cross-complementing protein 1, XRCC1 Background: 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

Target Details

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.

UniProt: [P18887](#)

Pathways: [DNA Damage Repair](#)

Application Details

Application Notes: Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

Application Details: Western blot, 0.1-0.5 µg/mL

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL

Direct ELISA, 0.1-0.5 µg/mL

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

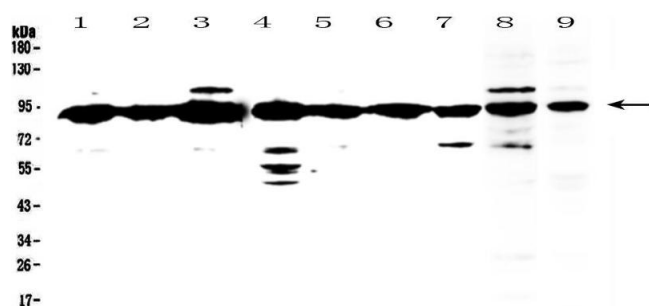
Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg NaN₃.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

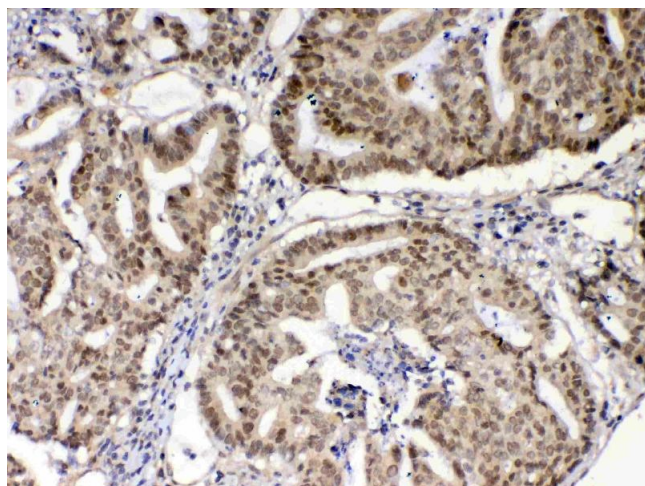
Storage: 4 °C,-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.



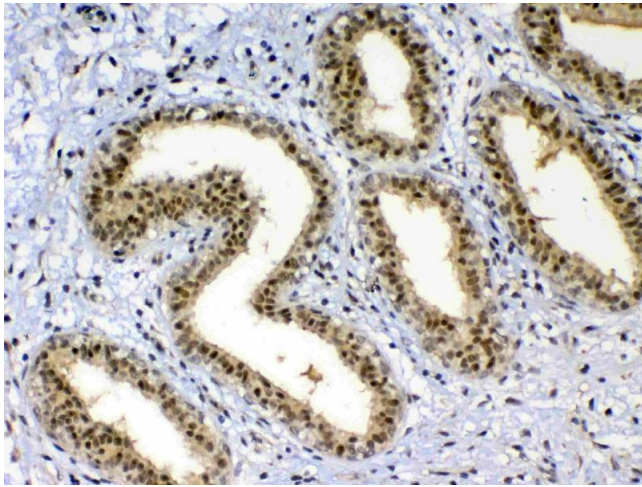
Western Blotting

Image 1. Western blot analysis of XRCC1 using anti-XRCC1 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: human Hela cell lysates, Lane 2: human placenta tissue lysates, Lane 3: human MCF-7 cell lysates, Lane 4: human HepG2 cell lysates, Lane 5: human A549 cell lysates, Lane 6: human SK-OV-3 cell lysates, Lane 7: human PANC-1 cell lysates, Lane 8: rat testis tissue lysates. Lane 9: mouse testis tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-XRCC1 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for XRCC1 at approximately 90KD. The expected band size for XRCC1 is at 69KD.



Immunohistochemistry

Image 2. IHC analysis of XRCC1 using anti-XRCC1 antibody . XRCC1 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-XRCC1 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue



section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Immunohistochemistry

Image 3. IHC analysis of XRCC1 using anti-XRCC1 antibody . XRCC1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-XRCC1 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN5693138.