Product datasheet

Anti-XRCC1 Antibody (Clone#10E10)

Catalog Number: *M00571-2*

BOSTER
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
East Lake High-Tech Development Zone, Wuhan.
Web: www.boster.com ***Phone:*** 027-67845390/1/2 ***Email:*** boster@boster.com

Basic Information

Product Name	Anti-XRCC1 Antibody (Clone#10E10)
Gene Name	XRCC1
Source	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Species Reactivity	human
Tested Application	WB, ICC/IF, FCM
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E. coli-derived human XRCC1 recombinant protein (Position: E538-A633).
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	90 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunocytochemistry/Immunofluorescence (ICC/IF):1:50-400 Flow Cytometry (Fixed): 1:50-200

Storage

12 months from date of receipt，-20℃ 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 meiogenesis 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.

Selected Validation Data

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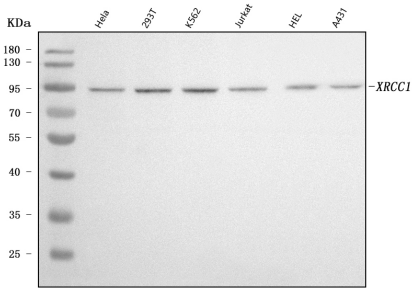
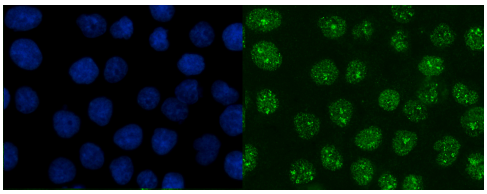
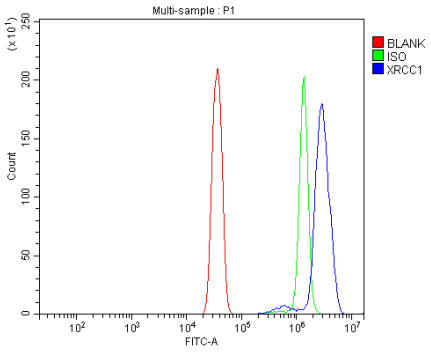


Western blot analysis of XRCC1 using anti-XRCC1 antibody (M00571-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human 293T whole cell lysates,
Lane 3: human K562 whole cell lysates,
Lane 4: human Jurkat whole cell lysates,
Lane 5: human HEL whole cell lysates,
Lane 6: human A431 whole cell lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-XRCC1 antigen affinity purified monoclonal antibody (M00571-2) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). 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.



ICC/IF analysis of XRCC1 using anti-XRCC1 antibody (M00571-2). XRCC1 was detected in an immunocytochemical section of A431 cells. The section was incubated with mouse anti-XRCC1 Antibody (M00571-2) at a dilution of 1:100. Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of Hela cells using anti-XRCC1 antibody (M00571-2).
Overlay histogram showing Hela cells stained with M00571-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-XRCC1 Antibody (M00571-2) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for

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30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.