10320 Camino Santa Fe, Suite G
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Anti-XRCC3 Antibody
Catalog # ABO10954

Specification

Anti-XRCC3 Antibody - Product Information

Application	**WB**
Primary Accession	O43542
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for DNA repair protein XRCC3(XRCC3) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-XRCC3 Antibody - Additional Information

Gene ID 7517

Other Names
DNA repair protein XRCC3, X-ray repair cross-complementing protein 3, XRCC3

Calculated MW
37850 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion. Accumulates in discrete nuclear foci prior to DNA damage, and these foci persist throughout the time course of DNA repair.

Protein Name
DNA repair protein XRCC3

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence in the middle region of human XRCC3(148-164aa HKRLQQLMAQQPRLRTD).

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, 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.**

Sequence Similarities
Belongs to the RecA family. RAD51 subfamily.

Anti-XRCC3 Antibody - Protein Information

Name XRCC3

Function
Involved in the homologous recombination repair (HRR) pathway of double-stranded DNA, thought to repair chromosomal fragmentation, translocations and deletions. Part of the RAD51 paralog protein complex CX3 which acts in the BRCA1-BRCA2-dependent HR pathway. Upon DNA damage, CX3 acts downstream of RAD51 recruitment; the complex binds predominantly to the intersection of the four duplex arms of the Holliday junction (HJ) and to junctions of replication forks. Involved in HJ resolution and thus in processing HR intermediates late in the DNA repair process; the function may be linked to the CX3 complex and seems to involve GEN1 during mitotic cell cycle progression. Part of a PALB2-scaffolded HR complex containing BRCA2 and RAD51C and which is thought to play a role in DNA repair by HR. Plays a role in regulating mitochondrial DNA copy number under conditions of oxidative stress in the presence of RAD51 and RAD51C.

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion. Note=Accumulates in discrete nuclear foci prior to DNA damage, and these foci persist throughout the time course of DNA repair

Anti-XRCC3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-XRCC3 Antibody - Images

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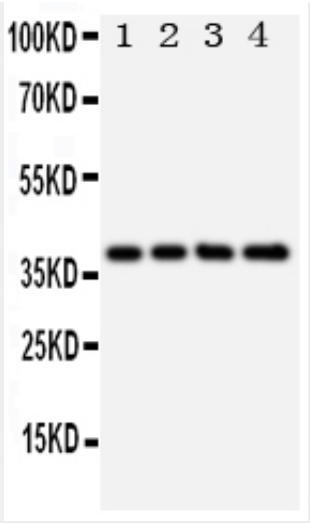

Anti-XRCC3 antibody, ABO10954, Western blottingAll lanes: Anti XRCC3 (ABO10954) at 0.5ug/mlLane 1: PANC Whole Cell Lysate at 40ugLane 2: JURKAT Whole Cell Lysate at 40ugLane 3: HT1080 Whole Cell Lysate at 40ugLane 4: SW620 Whole Cell Lysate at 40ugPredicted bind size: 38KDObserved bind size: 38KD

Anti-XRCC3 Antibody - Background

XRCC3(X-RAY REPAIR, COMPLEMENTING DEFECTIVE, IN CHINESE HAMSTER, 3) is a DNA repair protein that in humans, is encoded by the XRCC3 gene. The XRCC3 is a member of the RecA/Rad51-related protein family that participates in homologous recombination to maintain chromosome stability and repair DNA damage. XRCC3 interacts directly with RAD51 and may cooperate with RAD51 during recombinational repair. XRCC3 function is not limited to HR initiation, but extends to later stages in formation and resolution of HR intermediates, possibly by stabilizing heteroduplex DNA. The gene functionally complements Chinese hamster irs1SF, a repair-deficient mutant that exhibits hypersensitivity to a number of different DNA-damaging agents and is chromosomally unstable. A rare microsatellite polymorphism in this gene is associated with cancer in patients of varying radiosensitivity.