

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

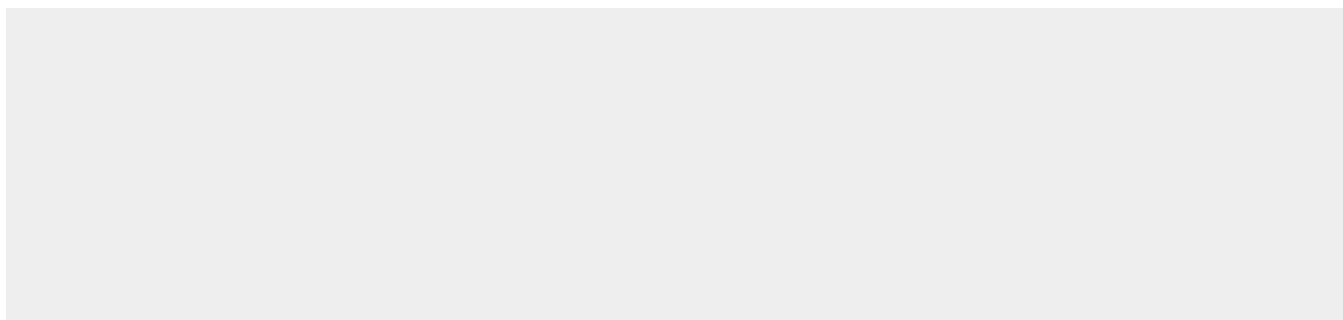
Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion. Note=Accumulates in discrete nuclear foci prior to DNA damage, and these foci persist throughout the time course of DNA repair

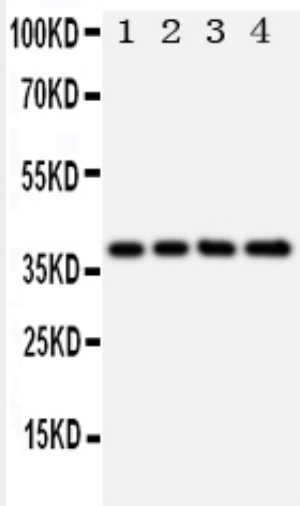
Anti-XRCC3 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-XRCC3 Antibody - Images





Anti-XRCC3 antibody, ABO10954, Western blotting All lanes: Anti XRCC3 (ABO10954) at 0.5ug/ml
Lane 1: PANC Whole Cell Lysate at 40ug
Lane 2: JURKAT Whole Cell Lysate at 40ug
Lane 3: HT1080 Whole Cell Lysate at 40ug
Lane 4: SW620 Whole Cell Lysate at 40ug
Predicted bind size: 38KD
Observed 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.