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Anti-XRCC3 Antibody
Catalog # ABO11007

Specification

Anti-XRCC3 Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9CXE6
Host	**Rabbit**
Reactivity	**Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for DNA repair protein XRCC3(XRCC3) detection. Tested with WB, IHC-P in Mouse;Rat.

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

Anti-XRCC3 Antibody - Additional Information

Gene ID 74335

Other Names
DNA repair protein XRCC3, X-ray repair cross-complementing protein 3, Xrcc3

Calculated MW
38446 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Mouse, Rat

Subcellular Localization
Nucleus . Cytoplasm . Cytoplasm, perinuclear region . Mitochondrion matrix . 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 at the C-terminus of mouse XRCC3(290-305aa NQLLMRLMVDRTHEDD), identical to the related rat sequence.

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.**

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 RAD21 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 (By similarity).

Cellular Location
Nucleus. Cytoplasm. Cytoplasm, perinuclear region. Mitochondrion matrix. 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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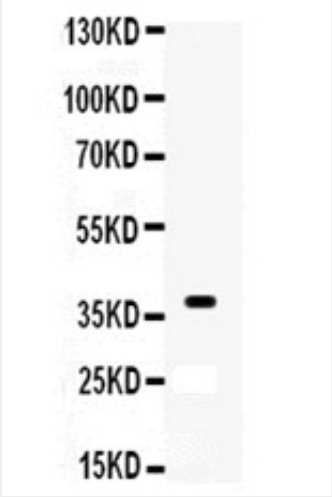
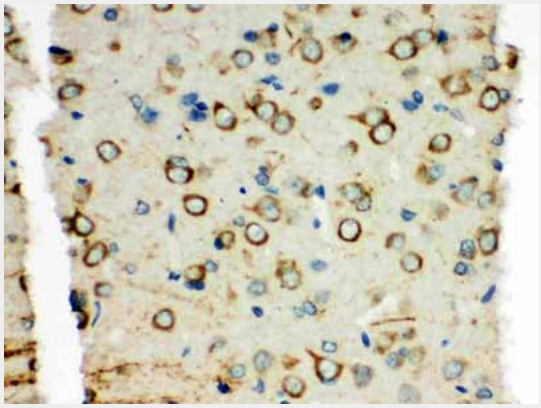


Anti-XRCC3 antibody, ABO11007, Western blottingAll lanes: Anti XRCC3(ABO11007) at 0.5ug/mlWB: Mouse Brain Tissue Lysate at 50ugPredicted bind size: 38KDObserved bind size: 38KD



Anti-XRCC3 antibody, ABO11007, IHC(P)IHC(P): Rat Brain Tissue

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.