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Anti-XRCC3 Antibody

Catalog # ABO11007

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.

Additional Information

Gene ID	74335
Other Names	DNA repair protein XRCC3, X-ray repair cross-complementing protein 3, Xrcc3
Calculated MW	38446
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Rat, Mouse, By Heat Western blot, 0.1-0.5 □g/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. .
Source	Eukaryota
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.

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.

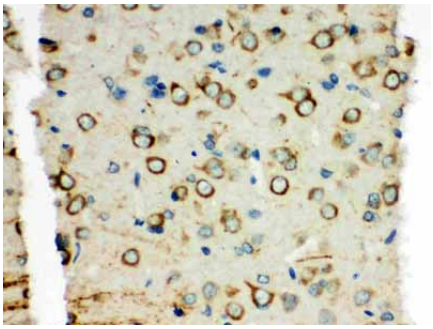
Background

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.

Images

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



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