

Anti-XRCC3 Antibody

Rabbit Polyclonal Antibody

Catalog # ABV11870

Product Information

Application	WB, IHC, IF, ICC
Primary Accession	O43542
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	37850

Additional Information

Gene ID	7517
Positive Control	WB: HeLa, mouse kidney, rat kidney lysates; IHC: human tonsil tissue; IFc: HeLa cell
Application & Usage	WB; 1:500 – 1:2000, IHC; 1:50 – 1:200, IF/IC; 1:50 – 1:100
Alias Symbol	XRCC3
Other Names	DNA repair protein XRCC3; X-ray repair cross-complementing protein 3
Appearance	Colorless liquid
Formulation	In 0.42% Potassium phosphate; 0.87% Sodium chloride; pH 7.3; 30% glycerol and 0.01% sodium azide
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-XRCC3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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.

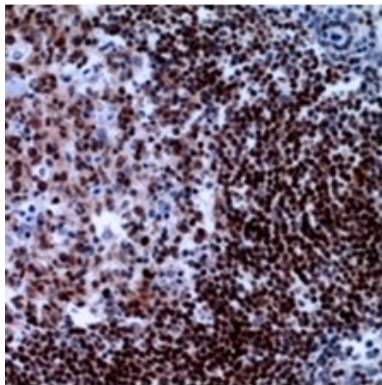
Cellular Location

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

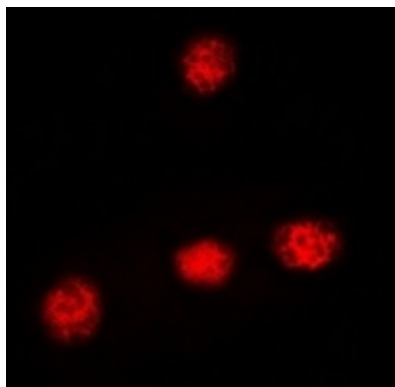
Background

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.

Images

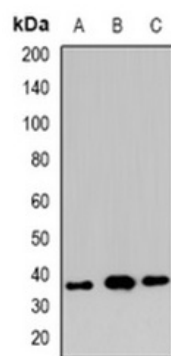


Immunohistochemical analysis of XRCC3 staining in H.tonsil formalin fixed paraffin embedded tissue section.



Immunofluorescent analysis of XRCC3 staining in HeLa cells.

Western blot analysis of XRCC3 expression in HeLa(A); M.kidney(B); R.kidney(C) whole cell lysates.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.