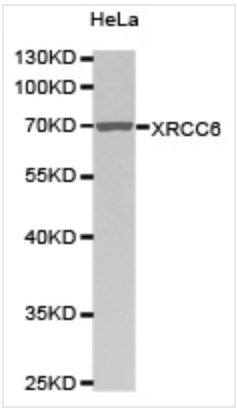
XRCC6 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	XRCC6, Polyclonal Antibody
Full Product Name	XRCC6 Polyclonal Antibody
Product Gene Name	anti-XRCC6 antibody
Product Synonym Names	CTC75; CTCBF; G22P1; KU70; ML8; TLAA
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Purity/Purification	Affinity purification
Preparation and Storage	Store at-20 degree C or-80 degree C. Avoid freeze/thaw cycles.
Molecular Weight	75kDa
OMIM	152690
3D Structure	ModBase 3D Structure for P12956
Immunogen	Recombinant protein of human XRCC6
Storage Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-XRCC6 antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-XRCC6 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200 IF: 1:20-1:50
Related Product Information for anti-XRCC6 antibody	X-ray repair cross-complementing protein 6(XRCC6)gene encodes subunit p70 of the p70/p80 autoantigen which has a role in DNA repair or transposition. DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner, which may be mediated by XRCC6. XRCC6/5 can form a heterdimer, which function as a regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA, and also it can stablize broken DNA ends and bringing them together. Otherwise, XRCC5/6 heterdimer together with APEX1 can negatively regulate of transcription
Other Notes	Small volumes of anti-XRCC6 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for XRCC6 purchase	MBS8527357 is an antibody targeting XRCC6. Also known as XRCC6 Polyclonal Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-XRCC6 antibody
Western blot analysis of extracts of HeLa cellslines, using XRCC6 antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for XRCC6. It may not necessarily be applicable to this product.

NCBI GI #	573014815
NCBI GeneID	2547
NCBI Accession #	NP_001275905.1
UniProt Primary Accession #	P12956
UniProt Secondary Accession #	Q6FG89; Q9UCQ2; Q9UCQ3; B1AHC8
UniProt Related Accession #	P12956
GenBank Nucleotide #	NM_001288976.1
NCBI Official Full Name	X-ray repair cross-complementing protein 6 isoform 1
NCBI Official Synonym Full Names	X-ray repair cross complementing 6
NCBI Official Symbol	XRCC6
NCBI Official Synonym Symbols	ML8; KU70; TLAA; CTC75; CTCBF; G22P1
UniProt Protein Name	X-ray repair cross-complementing protein 6
UniProt Synonym Protein Names	5'-deoxyribose-5-phosphate lyase Ku70; 5'-dRP lyase Ku70; 70 kDa subunit of Ku antigen; ATP-dependent DNA helicase 2 subunit 1; ATP-dependent DNA helicase II 70 kDa subunit; CTC box-binding factor 75 kDa subunit; CTC75; CTCBF; DNA repair protein XRCC6; Lupus Ku autoantigen protein p70; Ku70; Thyroid-lupus autoantigen; TLAA; X-ray repair complementing defective repair in Chinese hamster cells 6
Protein Family	X-ray repair cross-complementing protein
UniProt Gene Name	XRCC6
UniProt Synonym Gene Names	G22P1; 5'-dRP lyase Ku70; CTC75; CTCBF; Ku70; TLAA
NCBI Protein Information	X-ray repair cross-complementing protein 6
NCBI Summary for XRCC6	The p70/p80 autoantigen is a nuclear complex consisting of two subunits with molecular masses of approximately 70 and 80 kDa. The complex functions as a single-stranded DNA-dependent ATP-dependent helicase. The complex may be involved in the repair of nonhomologous DNA ends such as that required for double-strand break repair, transposition, and V(D)J recombination. High levels of autoantibodies to p70 and p80 have been found in some patients with systemic lupus erythematosus. [provided by RefSeq, Jul 2008]

UniProt Comments for XRCC6	Single-stranded DNA-dependent ATP-dependent helicase. Has a role in chromosome translocation. The DNA helicase II complex binds preferentially to fork-like ends of double-stranded DNA in a cell cycle-dependent manner. It works in the 3'-5' direction. Binding to DNA may be mediated by XRCC6. Involved in DNA non-homologous end joining (NHEJ) required for double-strand break repair and V(D)J recombination. The XRCC5/6 dimer acts as regulatory subunit of the DNA-dependent protein kinase complex DNA-PK by increasing the affinity of the catalytic subunit PRKDC to DNA by 100-fold. The XRCC5/6 dimer is probably involved in stabilizing broken DNA ends and bringing them together. The assembly of the DNA-PK complex to DNA ends is required for the NHEJ ligation step. Required for osteocalcin gene expression. Probably also acts as a 5'-deoxyribose-5-phosphate lyase (5'-dRP lyase), by catalyzing the beta-elimination of the 5' deoxyribose-5-phosphate at an abasic site near double-strand breaks. 5'-dRP lyase activity allows to 'clean' the termini of abasic sites, a class of nucleotide damage commonly associated with strand breaks, before such broken ends can be joined. The XRCC5/6 dimer together with APEX1 acts as a negative regulator of transcription. Plays a role in the regulation of DNA virus-mediated innate immune response by assembling into the HDP-RNP complex, a complex that serves as a platform for IRF3 phosphorylation and subsequent innate immune response activation through the cGAS-STING pathway.
Research Articles on XRCC6	**1.** The DNA binding domain of Ku70 was essential for formation of the Ku70-STING complex. Knocking down STING in primary human macrophages inhibited their ability to produce IFN-lambda1 in response to transfection with DNA or infection with the DNA virus HSV-2 (herpes simplex virus-2). Together, these data suggest that STING mediates the Ku70-mediated IFN-lambda1 innate immune response to exogenous DNA or DNA virus infection.
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