

Basic Information

Product Name	Anti-KU70/XRCC6 Antibody (Clone#3D7)	
Gene Name	XRCC6	
Source	Mouse	
Isotype	IgG1	
Species Reactivity	human	
Tested Application	WB, IHC, IF, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% Na ₂ S ₂ O ₃ , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at C-terminus of human Ku70 (464-496aa AIVEKLRFTYRSDSFENPVLQQHFRNLEALALD), different from the related mouse sequence by one amino acid.	
concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	70KD	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow cytometry (FCM): 1-3 µg/1x10 ⁶ cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

XRCC6 (X-Ray Repair, Complementing Defective, In Chinese Hamster, 6), also called Ku70, G22P1 or TLAA, is a protein that in humans, is encoded by the XRCC6 gene. In addition, the XRCC6 gene encodes subunit p70 of the p70/p80 autoantigen which consists of 2 proteins of molecular mass of approximately 70,000 and 80,000 daltons that dimerize to form a 10 S DNA-binding complex. The XRCC6 gene is mapped to 22q13.2. XRCC6 and Mre11 are differentially expressed during meiosis. XRCC6 interacts with Baxa, a mediator of mitochondrial-dependent apoptosis. Disruption of both FANCC and XRCC6 suppressed sensitivity to crosslinking agents, diminished chromosome breaks, and reversed defective homologous recombination. Ku70 binds directly to free DNA ends, committing them to NHEJ repair. In early meiotic prophase, however, when meiotic recombination is most probably initiated, Mre11 was abundant, whereas XRCC6 was not detectable.

Selected Validation Data

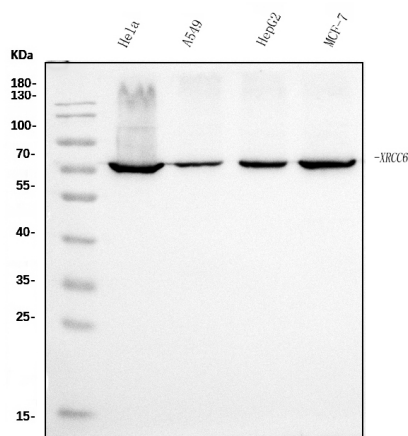


Figure 1. Western blot analysis of anti- XRCC6 antibody (M01732-4).

The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human HepG2 whole cell lysates,

Lane 4: human MCF-7 whole cell lysates. Use mouse anti- XRCC6

1:1000, probed with a goat anti- mouse IgG-HRP secondary

antibody. The signal is developed using an Enhanced

Chemiluminescent detection (ECL) kit (Catalog # EK1001). A

specific band was detected for XRCC6 at approximately 70KD. The

expected band size for XRCC6 is at 70KD.