

Product Specification Sheet

**Human X-Ray Repair Cross Complementing (XRCC1) Antibodies**

**Cat #** XRCC11-M,

Mouse Monoclonal Anti-Human XRCC1 IgG # 1

**SIZE:** 100 ug

X-Ray Repair Cross Complementing (**XRCC1**) is ~ 70 kDa protein (human 633 aa, mouse 631 aa) plays a role for the sensitivity of mammalian cell lines toward ionizing irradiation. Cells with a mutation of this gene present with decreased single strand break repair and reduced recombination repair, they show increased double strand breaks, and sister chromatid exchange is increased up to 10-fold. The XRCC1 might serve as a scaffold protein during base excision-repair. The C-terminal 96 amino acids of XRCC1 are necessary and sufficient for the specific interaction with DNA ligase III of 103kDa. The region of interaction with DNA polymerase beta is located within residues 84-183 in the N-terminal half of the XRCC1 protein. Reportedly, Poly (ADP-ribose) polymerase also interacts with XRCC1. XRCC1 is expressed at high levels in testis.

**Source of Antigen and Antibodies**

<b>Antigen</b>	Purified <b>Human recombinant XRCC1 protein</b>
<b>Ab Host/type</b>	Balb/c <b>mouse</b> . Splenocytes were fused with Sp2/0 cells. Resulting clone (XRCC11; IgG2b), selected for reactivity with XRCC1, was expanded into mice as ascites. Antibody has been purified by Protein A/G column chromatography.
<b>2-Ab</b>	<b>Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)</b>
<b>-ve control IgG</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

**Reconstitute powder** in PBS at 1mg/ml

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder.

**Recommended Usage**

**Western Blotting:** An initial concn. of 1-5 ug/ml is recommended for Western. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions. The antibody recognizes >70kDa in HeLa cells and testis.

**Histochemistry & Immunofluorescence:** Not tested. An initial concn. 2-20 ug/ml is recommended for IHC.

**Immunoprecipitation:** 5-10 ug/mg of protein lysate:

**Specificity & Cross-reactivity**

XRCC11-M recognizes human protein. Antibody cross-reactivity in various species has not been studied.

**General References:**

1. Brookman KW et al (1994) Genomics 22, 180-188; Thompson LH et al (1990) Mol Cell Biol. 10, 6160-6171; Cappeli E et al (1997) J. Biol. Chem. 272, 23970-23975; Nash RA et al (1997) Biochemistry 36, 5207-5211.

**\*This product is for In vitro research use only.**

**Related material available from ADI**

Antibodies to MGMT, hNTH, Ape, mutY, OGG1, XRCC1, DNA Ligase, Polymerase, XPG, ORC1 etc are available.

Anti-Rabbit IgG-HRP Conjugate and ECL Reagents

**Western Blot Recycling Kit (Strips blots in 5 minutes)** and re-use the same blot with multiple antibodies

RCC11-M

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