

#2735 Store at -20°C

XRCC1 Antibody

✓ 100 µl
(10 western blots)

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rev. 03/31/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #7515
Swiss-Prot Acc. #P18887

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-IC Endogenous	H	82 kDa	Rabbit**

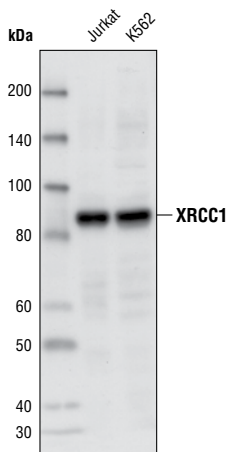
Background: The X-ray repair cross complementing protein 1 (XRCC1) is a DNA repair protein important in both single strand break repair and base excision repair following damage from ionizing radiation and alkylating agents (1). XRCC1 acts as a scaffold protein to coordinate DNA abasic site repair through interaction with several other repair proteins (2). At least eight XRCC1 protein partners have been identified, including the polynucleotide kinase PNK (3), DNA ligase III (4,5), poly (ADP-ribose) polymerase (6), and PCNA (7). Mutations and polymorphisms in the XRCC1 gene serve as diagnostic markers and are associated with elevated risk of various forms of cancers (8).

Specificity/Sensitivity: XRCC1 Antibody detects endogenous levels of total XRCC1 protein.

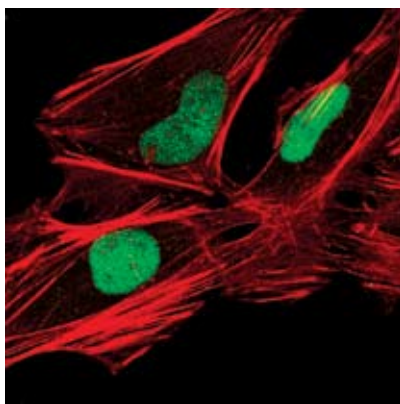
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to amino acids surrounding Arg300 of human XRCC1. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Brem, R. and Hall, J. (2005) *Nucleic Acids Res.* 33, 2512–2520.
- (2) Vidal, A.E. et al. (2001) *EMBO J.* 20, 6530–6539.
- (3) Whitehouse, C.J. et al. (2001) *Cell* 104, 107–117.
- (4) Caldecott, K.W. et al. (1994) *Mol. Cell. Biol.* 14, 68–76.
- (5) Nash, R.A. et al. (1997) *Biochemistry* 36, 5207–5211.
- (6) Masson, M. et al. (1998) *Mol. Cell. Biol.* 18, 3563–3571.
- (7) Fan, J. et al. (2004) *Nucleic Acids Res.* 32, 2193–2201.
- (8) Hu, Z. et al. (2005) *Cancer Epidemiol. Biomarkers Prev.* 14, 1810–1818.



Western blot analysis of extracts from Jurkat and K562 cells using XRCC1 Antibody.



Confocal immunofluorescent analysis of HeLa cells using XRCC1 Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red).

Storage: Supplied in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (IF-IC)	1:100

For application specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.