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Store at -20C
#2735

XRCC1 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP, IF-IC	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 82	Source/Isotype: Rabbit	UniProt ID: #P18887	Entrez-Gene Id: 7515
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Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:100
1:100

Storage

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

Specificity/Sensitivity

XRCC1 Antibody detects endogenous levels of total XRCC1 protein.

Species predicted to react based on 100% sequence homology

Monkey

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

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: Human

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