

Human Xeroderma Pigmentosum Type G (XPG) Antibodies

Cat # XPG11-M,

Mouse Monoclonal Anti-Human XPG IgG

SIZE: 100 ug

Xeroderma pigmentosum (XP) is characterized high sensitivity to UV light and high incidence of skin cancer fall into seven complementation groups, XPA to XPG, and are lacking a functional helicase, endonuclease, or lesion-recognizing proteins involved base excision repair. Xeroderma pigmentosum type G (**XPG**) is one of the rarest and phenotypically heterogeneous forms of genetic disorder. XPG gene encodes an acidic protein with an estimated mol wt ~133 kDa that confers normal UV-resistance. XPG is a member of the flap endonuclease 1 (FEN-1) structure-specific DNA repair endonuclease family responsible to UV-induced DNA repair. Human XPG makes the 3' incision during nucleotide excision repair of DNA. The enzyme cleaves model DNA bubble structures specifically near the junction of unpaired DNA with a duplex region. A 29-aa region of human XPG (981-1009 aa) contains the PCNA binding activity. A conserved Arg in XPG (Arg992) is crucial for its PCNA-binding activity. Replication protein A (RPA) binds specifically and directly to two excision repair proteins, Xeroderma pigmentosum damage recognition protein XPA and the endonuclease XPG.

Source of Antigen and Antibodies

Antigen	Purified Human recombinant XPG protein
Ab Host/type	Mouse, monoclonal IgG2a/k Aff pure IgG (cat # XPG11-M) purified over Protein A/G Agarose
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage

Affinity pure IgG

100 ug/500 ul
solution lyophilized powder
Buffer: PBS pH 7.5, 0.2% BSA, 0.05% sodium azide
Reconstitute powder PBS at 1 mg/ml

Storage

Short-term: unopened, undiluted liquid vials for less than a week at 4oC.

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 >185 kDa in DiFi and other cells and tissues.

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

XPG11-M recognizes human XPG. Antibody cross-reactivity in various species has not been studied.

General References:

1. Cloud KG et al (1995) Mut. Res. 347, 55-60; O'Donnovan et al (1994) J. Biol. Chem. 269, 15965-15968; Aboussekhra A et al (1995) Exp. Cell Res. 221, 326-332; Vilpo JA et al (1995) Mol Cell. Biol. 15, 290-297; Gary R et al (1997) J. Biol. Chem. 272, 24522-24529; Boulikas T et al (1996) Anticancer res. 16, 693-708.

***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

XPG11-M

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