



**MONOCLONAL ANTIBODY**

*For research use only. Not for clinical diagnosis.*

**Catalog No. KUP-TM-M03**

# Anti XPG monoclonal antibody [Clone : G-26]

## BACKGROUND

Nucleotide excision repair (NER) is a major repair system for removing a variety of DNA lesions including UV-induced cyclobutane pyrimidine dimer and (6-4) photoproduct as well as chemical-induced bulky base adducts. Defects in the NER system give rise to xeroderma pigmentosum (XP), an autosomal recessive disease characterized by a predisposition to skin cancer and in some cases neurological abnormalities. The early process of human NER, from damage recognition to dual incision (removal of damage-containing oligonucleotides), is accomplished by six core NER factors, XPC-RAD23B, TFIIH, XPA, RPA, ERCC1-XPF and XPG *in vitro*.

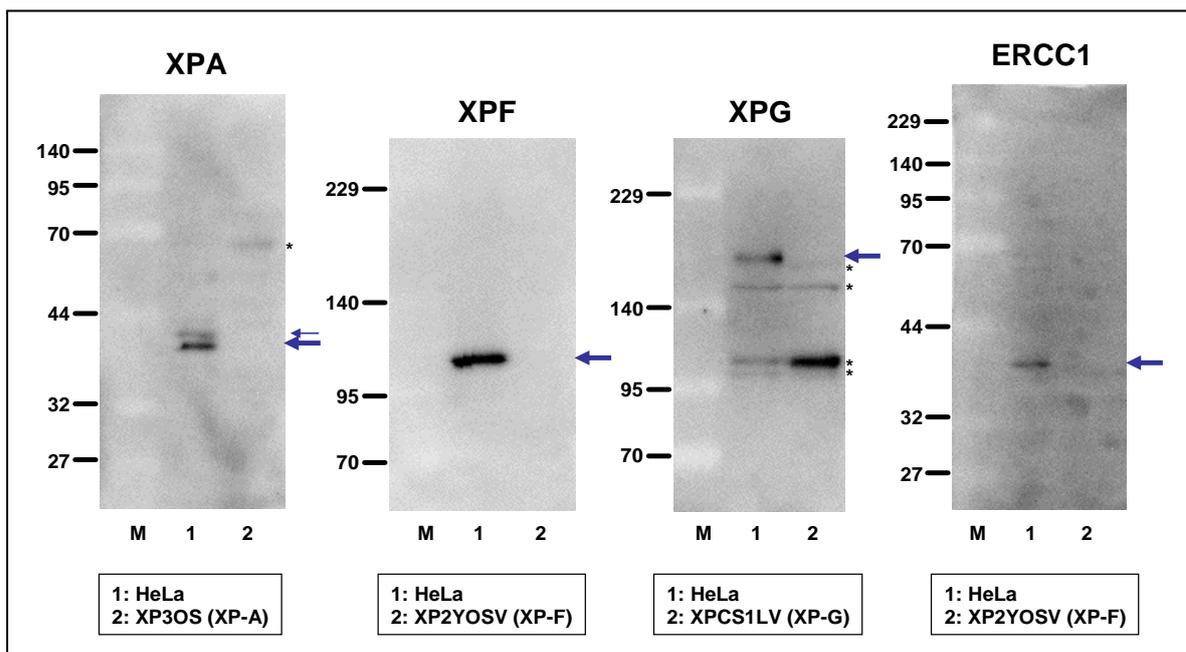
**XPG is a structure-specific endonuclease with an opposite polarity to ERCC1-XPF and makes a nick on the DNA strand which makes the transition from single-stranded to duplex DNA in the 5' to 3' direction. In the NER process, XPG is responsible for 3'-incision at a dual incision step.**

<b>Product type</b>	Primary antibodies
<b>Host</b>	Mouse
<b>Source</b>	Partially purified from culture supernatant by 50% ammonium sulfate
<b>Form</b>	Liquid
<b>Volume</b>	100 µl
<b>Specificity</b>	XPG
<b>Antigen</b>	MBP-XPG expressed in E. coli and affinity-purified by amylose column
<b>Clone</b>	G-26
<b>Isotype</b>	IgG1 (k)

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<b>Application notes</b>	Western blotting, 1/1,000 Predicted molecular weight: 133 kDa Epitope, amino acid residues 40-54
<b>Cross reactivity</b>	Human
<b>Storage</b>	Store below -20°C (below -70°C for prolonged storage). Aliquot to avoid cycles of freeze/thaw..
<b>References</b>	1) Oyama M, Wakasugi M, Hama T, et al., Human NTH1 physically interacts with p53 and proliferating cell nuclear antigen. <i>Biochem. Biophys. Res. Commun.</i> 321, 183-191, 2004

## ANTIBODY CHARACTERIZATION



## RELATED PRODUCT:

Product Name	Maker	Cat#
Anti cyclobutane pyrimidine dimers (CPDs) Monoclonal Antibody (Clone:TDM-2)	CAC	NM-DND-001
Anti (6-4) photoproducts (6-4PPs) Monoclonal Antibody (Clone:64M-2)	CAC	NM-DND-002
Anti Dewar photoproducts (DewarPPs) Monoclonal Antibody (Clone:DEM-1)	CAC	NM-DND-003
Anti Acetylaminofluorene(AAF)-DNA adducts Monoclonal Antibody (Clone:AAF-1)	CAC	NM-MA-001
Anti XPA Monoclonal Antibody (Clone:A-2)	CAC	KUP-TM-M01
Anti XPF Monoclonal Antibody (Clone:19-16)	CAC	KUP-TM-M02
Anti ERCC1 Monoclonal Antibody (Clone:E1-44)	CAC	KUP-TM-M04
Anti DDB1 Monoclonal Antibody (Clone:43233-3-1)	CAC	KUP-TM-M05
PROTAMINE SULFATE COATED ELISA PLATE 96	CSR	NM-MA-P001
PROTAMINE SULFATE COATED ELISA PLATE 96 x 5	CSR	NM-MA-P002
PROTAMINE SULFATE COATED ELISA PLATE 96 x 10	CSR	NM-MA-P003

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