



## MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. **BAM-70-031-EX****Anti-XPA (Clone 5F12)****BACKGROUND**

XP (Xeroderma pigmentosum) is an autosomal recessive human disease characterized by hypersensitivity to sunlight and a high incidence of skin cancer on sun-exposed skin (1). Cells from XP patients are hypersensitive to killing by UV irradiation because of a defect in nucleotide excision repair (NER). XP is classified into seven complementation groups (A-G) and a variant form (1). XPA shows the most severe symptoms. Products encoded by the XP genes function in repairing UV-induced cyclobutane pyrimidine dimer and (6-4) photoproducts as well as chemically induced variety of DNA lesions (1).

XPA protein consists of 273 amino acids and forms a complex with many proteins such as RPA, ERCC1, TFIIH, XAB1, and XAB2, which plays a role in early step of NER. The hybridoma 5F12 was constructed by Prof. K. Tanaka's group who first cloned the XPA gene (2, 3).

<b>Product type</b>	Primary antibodies
<b>Host</b>	Mouse
<b>Source</b>	
<b>Form</b>	Liquid Purified IgG, 1 mg/ml in PBS pH 7.2, 50% glycerol, filter-sterilized Epitope: Amino acids 30-47
<b>Volume</b>	50 µg
<b>Concentration</b>	
<b>Specificity</b>	
<b>Antigen</b>	Recombinant full-length human XPA protein
<b>Clone</b>	5F12
<b>Isotype</b>	IgG2b

**Application notes** WB, ELISA, Inhibition of in vitro excision repair reaction, Inhibition of XPA interaction with ERCC1 and TFIIH Other applications have not been tested.

**Recommended use****Recommended dilutions**

Western blotting: 0.1-1 µg/ml

Optimal dilutions/concentrations should be determined by the end user.

Data Link: UniProtKB/Swiss-Prot [P23025](#) (XPA\_HUMAN)

**Staining Pattern**

**Cross reactivity** human (expected to react also with mouse XPA from the sequence homology)

**Storage** -20°C (for long period; -70°C)

**References**

(This antibody is described in Ref. 2)

- 1) Friedberg EC *et al* *DNA Repair and Mutagenesis* 2nd ed., ASM Press (2006)
- 2) Saijo M *et al* "Inhibition of nucleotide excision repair by anti-XPA monoclonal antibodies which interfere with binding to RPA, ERCC1, and TFIIH" *Biochem Biophys Res Comm* **321**:815-822 (2004) PMID: [15358100](#)
- 3) Tanaka K *et al* "Analysis of a human DNA excision repair gene involved in group A xeroderma pigmentosum and containing a zinc-finger domain" *Nature* **348**:73 -76 (1990) PMID: [2234061](#)

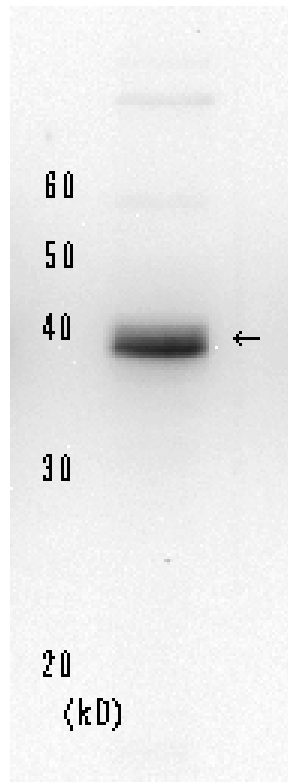


Figure Detection of XPA protein in the crude extract of HeLa cells by Western blotting using this monoclonal antibody.

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