Technical Data Sheet

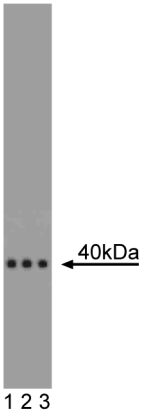
Purified Mouse Anti-Human XPA

Product Information

Material Number:	**556453**
Alternate Name:	Xeroderma Pigmentosum factor A
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	12F5
Immunogen:	Human XPA (His-tagged) Recombinant Protein
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Target MW:	34-40 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

Nucleotide excision repair (NER) is a major pathway by which cells remove UV and chemically induced damage from DNA. The biochemistry of NER is complex and includes recognition of the damaged DNA, formation of incisions ~26-29 nucleotides apart on each side of the damaged DNA, excision of an oligonucleotide carrying the damaged DNA, and synthesis of a repair patch using the opposite DNA strand as a template. The xeroderma pigmentosum (XP) factors are the best characterized components in the NER pathway. They are termed XP-A to -G and are thought to be required for the first steps of the nucleotide excision repair process. XPA is a DNA damage-binding protein and XPC is a single stranded DNA-binding protein. XPB and XPD are DNA helicases that are components of the transcription factor TFIIH. The TFIIH complex is thought to be involved in transcription and NER. XPF is an endonuclease that binds to ERCC1 (for excision repair cross-complementing) and the ERCC1-XPF complex makes the incision 5' to the DNA damage. ERCC1 migrates at a molecular weight of ~36 kDa in SDS-PAGE. XPG is an endonuclease that makes the 3' incision. XPA has been reported to migrate at a molecular weight of 34-40 kDa in SDS-PAGE.



Western blot analysis of XPA. *A Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152) was probed with the mouse anti-human XPA antibody (clone 12F5) at a concentration of 1 µg/ml (lane 1), 0.5 µg/ml (lane 2), or 0.25 µg/ml (lane 3).*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development

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Recommended Assay Procedure:
Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611449	HeLa Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Aboussekhra A, Biggerstaff M, Shivji MK, et al. Mammalian DNA nucleotide excision repair reconstituted with purified protein components. *Cell.* 1995; 80(6):859-868.(Biology)
Evans E, Fellows J, Coffer A, Wood RD. Open complex formation around a lesion during nucleotide excision repair provides a structure for cleavage by human XPG protein. *EMBO J.* 1997; 16(3):625-638.(Biology)