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XPC Monoclonal Antibody (3.26)

Catalog Number MA1-23328

Product data sheet

Details	
Size	100 µL
Host/Isotope	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	3.26
Immunogen	Recombinant XPC protein purified from E. coli
Conjugate	Unconjugated
Form	Liquid
Concentration	1.15 mg/mL
Purification	Protein G
Storage buffer	PBS
Contains	no preservative
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

Species Reactivity	
Species reactivity	Human, Mouse
Published species	Human

Tested Applications	Dilution *
Immunohistochemistry (Paraffin) (IHC (P))	1:100
Western Blot (WB)	1:500-1:3,000
Immunocytochemistry (ICC/IF)	1:100-1:1,000

Published Applications	
Western Blot (WB)	See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Product specific information

Recommended positive controls: HeLa whole cell extract. Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

Background/Target Information

This gene encodes a component of the nucleotide excision repair (NER) pathway. There are multiple components involved in the NER pathway, including Xeroderma pigmentosum (XP) A-G and V, Cockayne syndrome (CS) A and B, and trichothiodystrophy (TTD) group A, etc. This component, XPC, plays an important role in the early steps of global genome NER, especially in damage recognition, open complex formation, and repair protein complex formation. Mutations in this gene or some other NER components result in Xeroderma pigmentosum, a rare autosomal recessive disorder characterized by increased sensitivity to sunlight with the development of carcinomas at an early age. Alternatively spliced transcript variants have been found for this gene.

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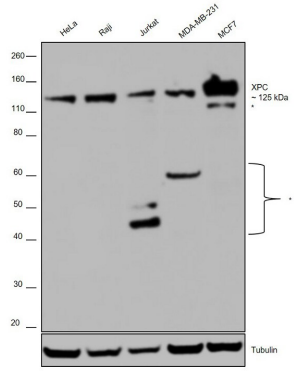
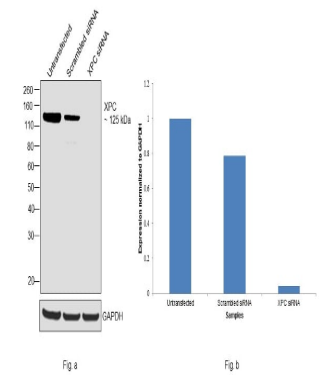
Product Images For XPC Monoclonal Antibody (3.26)



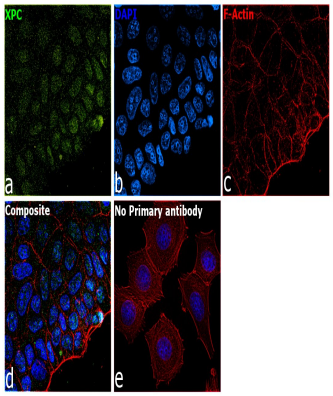
XPC Antibody (MA1-23328) in WB

Western blot was performed using Anti-XPC Monoclonal Antibody (Product # MA1-23328) and a ~125 kDa band corresponding to XPC was observed across cell lines along with certain uncharacterized bands (*) at different molecular weights. Membrane enriched extracts (30 µg lysate) of HeLa (Lane 1), Raji (Lane 2), Jurkat (Lane 3), MDA-MB-231 (Lane 4) and MCF7 (Lane 5) were electrophoresed using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0322BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177), 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



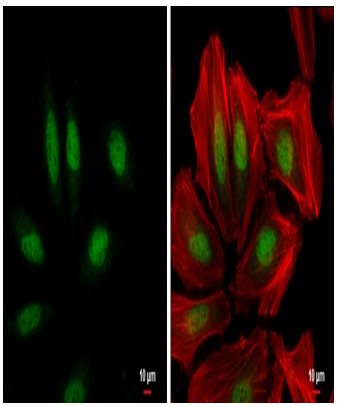
XPC Antibody (MA1-23328)

Antibody specificity was demonstrated by siRNA mediated knockdown of target protein. HeLa cells were transfected with XPC siRNA and reduction of signal was observed in Western Blot using XPC Monoclonal Antibody (3.26) (Product # MA1-23328). {KD}



XPC Antibody (MA1-23328) in ICC/IF

Immunofluorescence analysis of XPC was performed using 70% confluent log phase MCF7 cells. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 15 minutes, and blocked with 2% BSA for 1 hour at room temperature. The cells were labeled with XPC Monoclonal Antibody (3.26) (Product # MA1-23328) at 5 µg/mL in 0.1% BSA, incubated at 4 degree Celsius overnight and then with Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, Alexa Fluor 488 conjugate (Product # A28175) at a dilution of 1: 2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing staining in nucleus. Panel e represents control cells with no primary antibody to assess background. The images were captured at 60X magnification.



XPC Antibody (MA1-23328) in ICC/IF

XPC Monoclonal Antibody (3.26) detects XPC protein at nucleus by immunofluorescent analysis. Sample: HeLa cells were fixed in 4% paraformaldehyde at RT for 15 min. Green: XPC protein stained by XPC Monoclonal Antibody (3.26) (Product # MA1-23328) diluted at 1:100. Red: Phalloidin, a cytoskeleton marker, diluted at 1:200. Scale bar = 10 µm.

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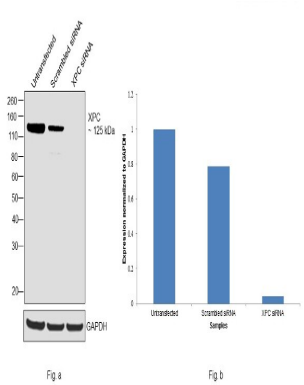
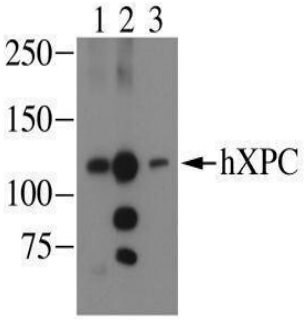


Fig.a Fig.b

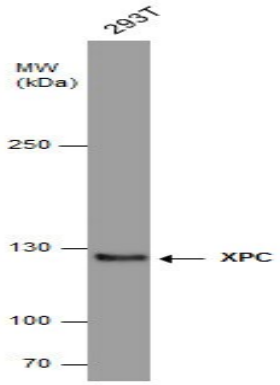
XPC Antibody (MA1-23328) in WB

Knockdown of XPC was achieved by transfecting HeLa with XPC specific siRNAs (Silencer® select Product # s14930, s533962). Western blot analysis (Fig. a) was performed using whole cell extracts from the XPC knockdown cells (Lane 3), non-specific scrambled siRNA transfected cells (Lane 2) and untransfected cells (Lane 1). The blot was probed with XPC Monoclonal Antibody (3.26) (Product # MA1-23328, 1:1000 dilution) and Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP conjugate (Product # A28177, 0.25ug/ml, 1:4000 dilution). Densitometric analysis of this western blot is shown in histogram (Fig. b). Decrease in signal upon siRNA mediated knock down confirms that antibody is specific to XPC.



XPC Antibody (MA1-23328) in WB

Western blot image of human XPC from HeLa whole cell lysate detected using XPC Monoclonal Antibody (3.26) (Product # MA1-23328) (lane 3).



XPC Antibody (MA1-23328) in WB

XPC Monoclonal Antibody (3.26) detects XPC protein by western blot analysis. Whole cell extracts (30 µg) was separated by 5% SDS-PAGE, and the membrane was blotted with XPC Monoclonal Antibody (3.26) (Product # MA1-23328) diluted at 1:500. The HRP-conjugated anti-mouse IgG antibody was used to detect the primary antibody.

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PubMed References For XPC Monoclonal Antibody (3.26)

1 Western Blot References

Species / Dilution	Summary
	MA1-23328 was used in Western Blotting to present a targeted tool for bypassing PTCs, named CRISPR-pass, that uses CRISPR-mediated adenine base editors.
Human / Not Cited	Molecular therapy : the journal of the American Society of Gene Therapy (Aug 2019; 27: 1364) **"CRISPR-Pass: Gene Rescue of Nonsense Mutations Using Adenine Base Editors."** Author(s):Lee C,Hyun Jo D,Hwang GH,Yu J,Kim JH,Park SE,Kim JS,Kim JH,Bae S PubMed Article URL:http://dx.doi.org/10.1016/j.ymthe.2019.05.013

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