**BACKGROUND**

Xeroderma pigmentosum (XP) is an autosomal recessive disorder characterized by a genetic predisposition to sunlight-induced skin cancer due to deficiencies in the DNA repair enzymes. The most frequent mutations are found in the XP genes of group A through G and group V, which encode nucleotide excision repair (NER) proteins. NER provides versatile DNA repair mechanisms to ensure the proper functioning of all cells. The majority of patients with XP carry mutations in either the XPA or XPC genes, which encode proteins involved in the recognition of damaged DNA. The gene encoding human XPC maps to chromosome 3p25.1. XPC forms a complex with Cez and the human homolog of yeast Rad23B (HR23B), both of which stabilize XPC; it also excises thymine dimers from damaged DNA. Specifically, the carboxy-terminus of XPC is required for HR23B and DNA binding and, subsequently, mutations leading to carboxy-terminal truncations result in nonfunctional XPC proteins.

**CHROMOSOMAL LOCATION**

Genetic locus: XPC (human) mapping to 3p25.1; Xpc (mouse) mapping to 6D1.

**SOURCE**

XPC (D-10) is a mouse monoclonal antibody raised against amino acids 641-940 mapping at the C-terminus of XPC of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

XPC (D-10) is available conjugated to agarose (sc-74410 AC), 500 µg/0.25 ml agarose in 1 ml, for IF; to HRP (sc-74410 HRP), 200 µg/ml, for WB, HCIP and ELISA; to either phycoerythrin (sc-74410 PE), fluorescein (sc-74410 FITC), Alexa Fluor® 488 (sc-74410 AF488), Alexa Fluor® 546 (sc-74410 AF546), Alexa Fluor® 594 (sc-74410 AF594) or Alexa Fluor® 647 (sc-74410 AF647), 200 µg/ml, for WB (RGB), IF, HCIP and FCM; and to either Alexa Fluor® 680 (sc-74410 AF680) or Alexa Fluor® 790 (sc-74410 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

XPC (D-10) is recommended for detection of XPC of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for XPC siRNA (h): sc-37805, XPC siRNA (m): sc-37806, XPC shRNA Plasmid (h): sc-37805-SH, XPC shRNA Plasmid (m): sc-37806-SH, XPC shRNA (h) Lentiviral Particles: sc-37805-V and XPC shRNA (m) Lentiviral Particles: sc-37806-V.

Molecular Weight of XPC: 125 kDa.

Positive Controls: Hela whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or Raji whole cell lysate: sc-364236.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.