



XPC (K-13): sc-22533

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, and is expressed as a 125 kDa protein. XPC forms a complex with Cen2 and the human homolog of yeast Rad23B (HR23B), both of which stabilize XPC, and 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.

REFERENCES

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SOURCE

XPC (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of XPC of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22533 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

XPC (K-13) is recommended for detection of XPC of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular weight of XPC: 125 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Hs68 cell lysate: sc-2230

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.