XPC (A-5): sc-74411

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 Cen2 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.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: XPC (human) mapping to 3p25.1.

SOURCE

XPC (A-5) 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 IgGκ, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

XPC (A-5) is recommended for detection of XPC of 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) 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 shRNA Plasmid (h): sc-37805-SH and XPC shRNA (h) Lentiviral Particles: sc-37805-V.

Molecular Weight of XPC: 125 kDa.

Positive Controls: HeLa cell lysate: sc-2230, Raji whole cell lysate: sc-364236 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:


DATA

![Western blot analysis of XPC expression in HeLa (A) and Raji (B) whole cell lysates.](image)

SELECT PRODUCT CITATIONS


RESEARCH USE

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