SANTA CRUZ BIOTECHNOLOGY, INC.

XPF (N-15): sc-10159

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Xeroderma Pigmentosum (XP) is an autosomal recessive disorder characterized by a genetic predisposition to sunlight-induced skin cancer, and it is commonly due to deficiencies in DNA repair enzymes. The most frequent mutations are found in the XP genes from group A through G and group V, which encode for nucleotide excision repair proteins. XPF, which is also designated ERCC4 or ERCC11, is a protein that associates directly with the excision repair cross-complementing 1 (ERCC1) factor. ERCC-1, a functional homolog of Rad10 in *S. cerevisiae*, is a component of a structure-specific endonuclease that is responsible for 5' incisions during DNA repair. The ERCC1-XPF endonuclease preferentially cleaves one strand of DNA between duplex and single-stranded regions near borders of the stem-loop structure, and thereby contributes to the initial steps of the nucleotide excision repair process.

CHROMOSOMAL LOCATION

Genetic locus: ERCC4 (human) mapping to 16p13.12; Ercc4 (mouse) mapping to 16 A1.

SOURCE

XPF (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of XPF 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-10159 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

XPF (N-15) is recommended for detection of XPF of mouse, rat and human origin byWestern Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

XPF (N-15) is also recommended for detection of XPF in additional species, including equine, canine and porcine.

Suitable for use as control antibody for XPF siRNA (h): sc-36855, XPF siRNA (m): sc-36856, XPF shRNA Plasmid (h): sc-36855-SH, XPF shRNA Plasmid (m): sc-36856-SH, XPF shRNA (h) Lentiviral Particles: sc-36855-V and XPF shRNA (m) Lentiviral Particles: sc-36856-V.

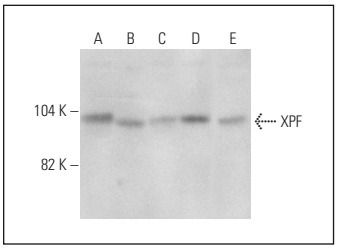
Molecular Weight of XPF: 112 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, KNRK nuclear extract: sc-2141 or MCF7 nuclear extract: sc-2149.

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.

DATA



XPF (N-15): sc-10159. Western blot analysis of XPF expression in HeLa (**A**), KNRK (**B**), MCF7 (**C**) and K-562 (**D**) nuclear extracts and HeLa whole cell lysate (**E**).

SELECT PRODUCT CITATIONS

1. Kruczynski, A., et al. 2004. Decreased nucleotide excision repair activity and alterations of topoisomerase IIα are associated with the *in vivo* resistance of a P388 leukemia subline to F11782, a novel catalytic inhibitor of topoisomerases I and II. Clin. Cancer Res. 10: 3156-3168.

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.