



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# ERCC1 (m): 293T Lysate: sc-126803

## BACKGROUND

Xeroderma pigmentosum (XP) is an autosomal recessive disorder characterized by a genetic predisposition to sunlight-induced skin cancer; 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, associates directly with the excision repair cross-complementing 1 (ERCC1) factor. ERCC1, 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.

## REFERENCES

1. van Duin, M., et al. 1986. Molecular characterization of the human excision repair gene ERCC1: cDNA cloning and amino acid homology with the yeast DNA repair gene Rad10. *Cell* 44: 913-923.
2. Biggerstaff, M., et al. 1993. Co-correction of the ERCC1, ERCC4 and xeroderma pigmentosum group F DNA repair defects *in vitro*. *EMBO J.* 12: 3685-3692.
3. Tateishi, S., et al. 1995. Separation of protein factors that correct the defects in the seven complementation groups of xeroderma pigmentosum cells. *J. Biochem.* 118: 819-824.
4. Aboussekhra, A., et al. 1995. Mammalian DNA nucleotide excision repair reconstituted with purified protein components. *Cell* 80: 859-868.
5. Li, L., et al. 1995. Mutations in XPA that prevent association with ERCC1 are defective in nucleotide excision repair. *Mol. Cell. Biol.* 15: 1993-1998.
6. Sijbers, A.M., et al. 1996. Xeroderma pigmentosum group F caused by a defect in a structure-specific DNA repair endonuclease. *Cell* 86: 811-822.
7. Miura, M., et al. 1996. Roles of XPG and XPF/ERCC1 endonucleases in UV-induced immunostaining of PCNA in fibroblasts. *Exp. Cell Res.* 226: 126-132.
8. Hayashi, T., et al. 1998. ERCC1 mutations in UV-sensitive Chinese hamster ovary (CHO) cell lines. *Mutat. Res.* 407: 269-276.
9. Wakasugi, M. and Sancar, A. 1999. Order of assembly of human DNA repair excision nuclease. *J. Biol. Chem.* 274: 18759-18768.

## CHROMOSOMAL LOCATION

Genetic locus: *Erc1* (mouse) mapping to 7 A3.

## PRODUCT

ERCC1 (m): 293T Lysate represents a lysate of mouse ERCC1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

ERCC1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ERCC1 antibodies. Recommended use: 10-20 µl per lane.

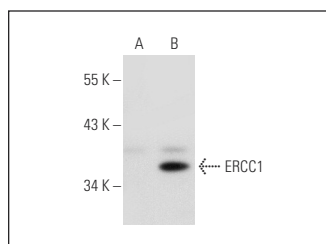
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ERCC1 (3H11): sc-53281 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ERCC1 expression in ERCC1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

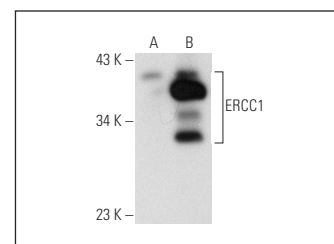
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



ERCC1 (3H11): sc-53281. Western blot analysis of ERCC1 expression in non-transfected: sc-117752 (A) and mouse ERCC1 transfected: sc-126803 (B) 293T whole cell lysates.



ERCC1 (D-10): sc-17809. Western blot analysis of ERCC1 expression in non-transfected: sc-117752 (A) and mouse ERCC1 transfected: sc-126803 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.