

---

## ERCC1 Ab-2 (Clone 8F1)

### Mouse Monoclonal Antibody

**Cat. #MS-671-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml)** (Purified Ab with BSA and Azide)

**Cat. #MS-671-PIABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)

**Cat. #MS-671-R7 (7.0ml)** (Ready-to-Use for Immunohistochemical Staining)

**Cat. #MS-671-PCS (5 Slides)** (Positive Control for Histology)

**Cat. #MS-671-PCL (0.1ml)** (Positive Control for Western Blot)

**Description:** The mammalian ERCC1 (Excision Repair Cross Complementing) polypeptide is required for nucleotide excision repair (NER) of damaged DNA and is homologous to *Saccharomyces cerevisiae* RAD10, which functions in repair and mitotic intrachromosomal recombination. NER mechanism involves dual incisions on both sides of the damage catalyzed by two nucleases. In mammalian cells XPG cleaves 3' of the DNA lesion while the ERCC1-XPF complex makes the 5' incision. Elevated levels of ERCC1 have also been reported in Cisplatin-resistant cells.

**Mol. Wt. of Antigen:** 33-36kDa

**Epitope:** Not determined

**Species Reactivity:** Human and Rat. Others-not known.

**Clone Designation:** 8F1

**Ig Isotype:** IgG<sub>2b</sub>

**Immunogen:** Recombinant full length human ERCC1 protein.

### Applications and Suggested Dilutions:

- Immunoprecipitation (Denatured verified)  
(Use Protein A) (Ab 2µg/mg protein lysate)
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin)  
(Use Ab at 1-2µg/ml for 30 min at RT)
- \* [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, (**NEOMARKERS'** Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** A431 or HeLa cells. Tonsil

**Cellular Localization:** Nuclear

**Supplied As:** 200µg/ml of antibody purified from ascites fluid by Protein A chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

### Storage and Stability:

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

### Suggested References:

1. Miura M, et al. Exp Cell Res 1996;226:126-132.
2. Hayashi T, et al. Mutat Res 1998;407:269-276.

### Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

### Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

**For Research Use Only**

---

## ERCC1 Ab-2 (Clone 8F1)

### Mouse Monoclonal Antibody

Cat. #MS-671-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)

Cat. #MS-671-PIABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)

Cat. #MS-671-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)

Cat. #MS-671-PCS (5 Slides) (Positive Control for Histology)

Cat. #MS-671-PCL (0.1ml) (Positive Control for Western Blot)

#### *Additional Suggested References:*

1. de Laat WL, Appeldoorn E, Jaspers NGJ, Hoeijmakers JHJ: DNA structural elements required for ERCC1-XPF endonuclease activity. *J Biol Chem* 1998;273(14):7835-7842.
2. de Laat WL, Sijbers AM, Odijk H, Jaspers NG, Hoeijmakers JH: Mapping of interaction domains between human repair proteins ERCC1 and XPF. *Nucleic Acids Res* 1998 Sep 15;26(18):4146-4152.
3. Lee-Kwon W, Park D, Bernier M: Involvement of the Ras/extracellular signal-regulated kinase signalling pathway in the regulation of ERCC-1 mRNA levels by insulin. *Biochem J* 1998 Apr 15;331 ( Pt 2):591-597.
4. Lee-Kwon W, Park D, Bernier M: Nucleotide excision repair is not required for the antiapoptotic function of insulin-like growth factor I. *Exp Cell Res* 1998;241(2):458-466.
5. Li Q, Bostick-Bruton F, Reed E: Effect of interleukin-1 alpha and tumour necrosis factor-alpha on cisplatin-induced ERCC-1 mRNA expression in a human ovarian carcinoma cell line. *Anticancer Res* 1998;18(4A):2283-2287.
6. Li Q, Ding L, Yu JJ, Mu C, Tsang B, Bostick-Bruton F, Reed E: Cisplatin and phorbol ester independently induce ERCC-1 protein in human ovarian carcinoma cells. *Int J Oncol* 1998;13(5):987-992.
7. Lin YW, Kubota M, Koishi S, Sawada M, Usami I, Watanabe K, Akiyama Y: Analysis of mutations at the DNA repair genes in acute childhood leukaemia. *Br J Haematol* 1998;103(2):462-466.
8. Reed E: Platinum-DNA adduct, nucleotide excision repair and platinum based anti-cancer chemotherapy. *Cancer Treat Rev* 1998;24(5):331-344.
9. Rolig RL, Lowery MP, Adair GM, Nairn RS: Characterization and analysis of Chinese hamster ovary cell ERCC1 mutant alleles. *Mutagenesis* 1998;13(4):357-365.
10. Li Q, Tsang B, Bostick-Bruton F, Reed E: Modulation of excision repair cross complementation group 1 (ERCC-1) mRNA expression by pharmacological agents in human ovarian carcinoma cells. *Biochem Pharmacol* 1999;57(4):347-353.