#12345 Store at -20°C

ERCC1 (D6G6) XP® Rabbit mAb

☐ Small 100 µl
(10 western blots)

☐ Petite 40 µl
(4 western blots)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #2067
Swiss-Prot Acc. #P07992

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P	H, M, R, Mk	39 kDa	Rabbit IgG**
Endogenous			

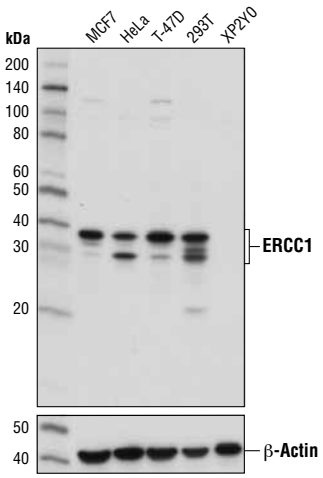
Background: DNA repair systems operate in all living cells to manage a variety of DNA lesions. Nucleotide excision repair (NER) is implemented in cases where bulky helix-distorting lesions occur, such as those brought about by UV and certain chemicals (1). Excision Repair Cross Complementing 1 (ERCC1) forms a complex with XPF, which acts as the 5' endonuclease required to excise the lesion (2). ERCC1-XPF is also required for repair of DNA interstrand crosslinks (ICLs) (3) and involved in repair of double strand breaks (4). Research studies have shown that expression of ERCC1 is related to survival rate and response to chemotherapeutic drugs in several human cancers including non-small cell lung cancer (NSCLC) (5,6).

Specificity/Sensitivity: ERCC1 (D6G6) XP® Rabbit mAb recognizes endogenous levels of total ERCC1 protein. This antibody also detects ERCC1 splice variants around 30 kDa.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ERCC1 protein.

Background References:

(1) Shuck, S.C. et al. (2008) *Cell Res* 18, 64-72.
(2) McDaniel, L.D. and Schultz, R.A. (2008) *Adv Exp Med Biol* 637, 65-82.
(3) Niedernhofer, L.J. et al. (2004) *Mol Cell Biol* 24, 5776-87.
(4) Ahmad, A. et al. (2008) *Mol Cell Biol* 28, 5082-92.
(5) Zheng, Z. et al. (2007) *N Engl J Med* 356, 800-8.
(6) Gossage, L. and Madhusudan, S. (2007) *Cancer Treat Rev* 33, 565-77.



Western blot analysis of extracts from various cell lines using ERCC1 (D6G6) XP® Rabbit mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

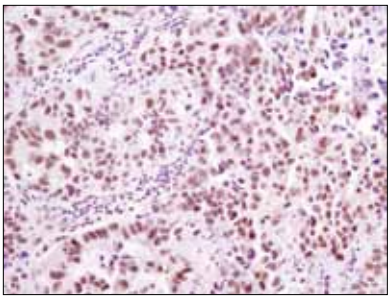
Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:125†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

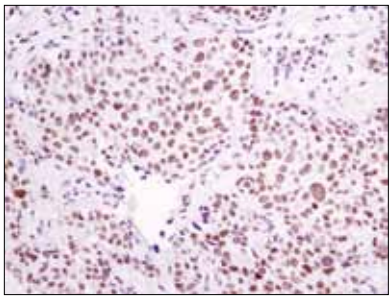
†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended complementary products.



Immunohistochemical analysis of paraffin-embedded human lung carcinoma using ERCC1 (D6G6) XP® Rabbit mAb.

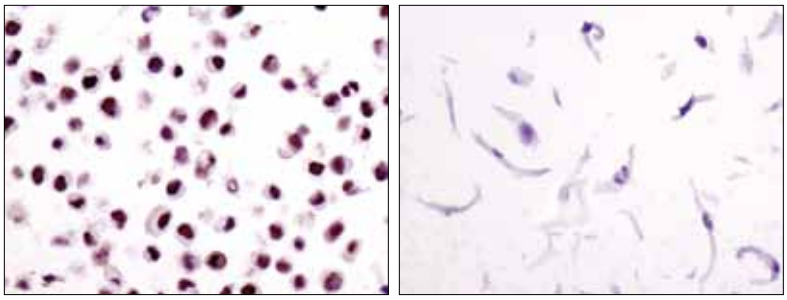


Immunohistochemical analysis of paraffin-embedded human breast carcinoma using ERCC1 (D6G6) XP® Rabbit mAb.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Tween® is a registered trademark of ICI Americas, Inc.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded cell pellets, HeLa (left) or XP2Y0 (right), using ERCC1 (D6G6) XP® Rabbit mAb.