

#12345 Store at -20°C

ERCC1 (D6G6) XP® Rabbit mAb



Cell Signaling
TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|----------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| WB, W-S, IHC-P | H M R Mk | Endogenous | 39 | Rabbit IgG | #P07992 | 2067 |

Product Usage Information

Application

Western Blotting
Simple Western™
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:10 - 1:50
1:125

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.

For a carrier free (BSA and azide free) version of this product see product #31223.

Specificity / Sensitivity

ERCC1 (D6G6) XP® Rabbit mAb recognizes endogenous levels of total ERCC1 isoforms 1, 2 and 4 protein. Experiments utilizing overexpression constructs indicated that this antibody does not cross-react with ERCC1 isoform 3.

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

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 ERCC4/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).

Background References

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

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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