10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ERCC6 (aa717-731) Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF3735a

Specification

ERCC6 (aa717-731) Antibody (internal region) - Product Information

Application	**WB**
Primary Accession	Q03468
Other Accession	NP_000115.1, 2074, 319955 (mouse), 306274 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**168416**

ERCC6 (aa717-731) Antibody (internal region) - Additional Information

Gene ID 2074

Other Names
DNA excision repair protein ERCC-6, 3.6.4.-, ATP-dependent helicase ERCC6, Cockayne syndrome protein CSB, ERCC6, CSB

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ERCC6 (aa717-731) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

ERCC6 (aa717-731) Antibody (internal region) - Protein Information

Name ERCC6 (HGNC:3438)

Synonyms CSB

Function
Essential factor involved in transcription-coupled nucleotide excision repair which allows RNA polymerase II-blocking lesions to be rapidly removed from the transcribed strand of active genes (PubMed:20541997,

PubMed:26620705, PubMed:16246722). Upon DNA-binding, it locally modifies DNA conformation by wrapping the DNA around itself, thereby modifying the interface between stalled RNA polymerase II and DNA (PubMed:15548521). It is required for transcription-coupled repair complex formation (PubMed:16916636). It recruits the CSA complex (DCX(ERCC8) complex), nucleotide excision repair proteins and EP300 to the sites of RNA polymerase II-blocking lesions (PubMed:16916636). Plays an important role in regulating the choice of the DNA double- strand breaks (DSBs) repair pathway and G2/M checkpoint activation; DNA-dependent ATPase activity is essential for this function (PubMed:25820262). Regulates the DNA repair pathway choice by inhibiting non-homologous end joining (NHEJ), thereby promoting the homologous recombination (HR)-mediated repair of DSBs during the S/G2 phases of the cell cycle (PubMed:25820262). Mediates the activation of the ATM- and CHEK2-dependent DNA damage responses thus preventing premature entry of cells into mitosis following the induction of DNA DSBs (PubMed:25820262). Acts as a chromatin remodeler at DSBs; DNA- dependent ATPase-dependent activity is essential for this function. Remodels chromatin by evicting histones from chromatin flanking DSBs, limiting RIF1 accumulation at DSBs thereby promoting BRCA1-mediated HR (PubMed:29203878). Required for stable recruitment of ELOA and CUL5 to DNA damage sites (PubMed:28292928). Involved in UV-induced translocation of ERCC8 to the nuclear matrix (PubMed:26620705). Essential for neuronal differentiation and neuritogenesis; regulates transcription and chromatin remodeling activities required during neurogenesis (PubMed:24874740).

Cellular Location
Nucleus.

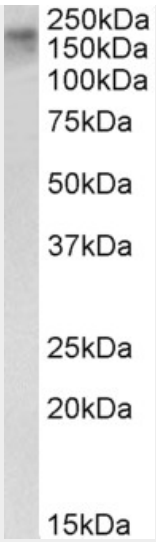
ERCC6 (aa717-731) Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ERCC6 (aa717-731) Antibody (internal region) - Images

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AF3735a (0.3 µg/ml) staining of HeLa nuclear lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

ERCC6 (aa717-731) Antibody (internal region) - References

Maternal origin of a de novo microdeletion spanning the ERCC6 gene in a classic form of the Cockayne syndrome. Zhang H, Gao J, Ye J, Gong Z, Gu X. Eur J Med Genet. 2011 Jul-Aug;54(4):e389-93. PMID: 21477668