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ERCC8 Antibody

Rabbit mAb
Catalog # AP92619

Product Information

Application	WB, IP
Primary Accession	Q13216
Reactivity	Human
Clonality	Monoclonal
Other Names	CKN1; CSA; ERCC8;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	44055

Additional Information

Dilution	WB 1:500~1:2000 IP 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human ERCC8
Description	Substrate-recognition component of the CSA complex, a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex, involved in transcription-coupled nucleotide excision repair.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

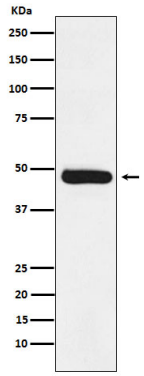
Name	ERCC8 {ECO:0000303|PubMed:19894250, ECO:0000312|HGNC:HGNC:3439}
Function	Substrate-recognition component of the CSA complex, a DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complex, involved in transcription-coupled nucleotide excision repair (TC-NER), a process during which RNA polymerase II-blocking lesions are rapidly removed from the transcribed strand of active genes (PubMed:12732143, PubMed:16751180, PubMed:16964240, PubMed:32142649, PubMed:34526721, PubMed:38316879, PubMed:38600235, PubMed:38600236). Following recruitment to lesion-stalled RNA polymerase II (Pol II), the CSA complex mediates ubiquitination of Pol II subunit POLR2A/RPB1 at 'Lys- 1268', a critical TC-NER checkpoint, governing RNA Pol II stability and initiating DNA damage excision by TFIIH recruitment (PubMed:12732143, PubMed:16751180, PubMed:16964240, PubMed:32142649, PubMed:32355176, PubMed:34526721, PubMed:38316879, PubMed:38600235, PubMed:38600236). The CSA complex also promotes the ubiquitination and subsequent proteasomal degradation of ERCC6/CSB in a UV-dependent manner; ERCC6 degradation is essential for the recovery of RNA synthesis

after transcription-coupled repair (PubMed:16751180). Also plays a role in DNA double-strand breaks (DSSBs) repair by non-homologous end joining (NHEJ) (PubMed:29545921).

Cellular Location

Nucleus. Chromosome Nucleus matrix. Note=Recruited to lesion- stalled RNA polymerase II (Pol II) sites by ERCC6/CSB (PubMed:32355176). UV-induced translocation to the nuclear matrix is dependent on ERCC6/CSB (PubMed:26620705).

Images



Western blot analysis of ERCC8 expression in Molt4 cell lysate.