

Anti-CSB Picoband Antibody
Catalog # ABO11678**Specification**

Anti-CSB Picoband Antibody - Product Information

Application	WB
Primary Accession	Q03468
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for DNA excision repair protein ERCC-6(ERCC6) detection. Tested with WB in Human;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-CSB Picoband Antibody - 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

Calculated MW

168416 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Nucleus .

Protein Name

DNA excision repair protein ERCC-6

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human CSB (160-205aa QAATSRDINRKLDVSRQKYNKEQQLKKITAKQKHLQAILGGAEVK).

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Anti-CSB Picoband Antibody - Protein Information

Name ERCC6 {ECO:0000303|PubMed:1339317, ECO:0000312|HGNC:HGNC:3438}

Function

Essential factor 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:16246722, PubMed:20541997, PubMed:22483866, PubMed:26620705, PubMed:32355176, PubMed:34526721, PubMed:38316879, PubMed:38600235, PubMed:38600236). Plays a central role in the initiation of the TC-NER process: specifically recognizes and binds RNA polymerase II stalled at a lesion, and mediates recruitment of ERCC8/CSA, initiating DNA damage excision by TFIIH recruitment (PubMed:32355176, PubMed:34526721, PubMed:38600235, PubMed:38600236). 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). Acts as a chromatin remodeler at DSBs; DNA-dependent ATPase-dependent activity is essential for this function (PubMed:16246722, PubMed:9565609). 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). 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). Also 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

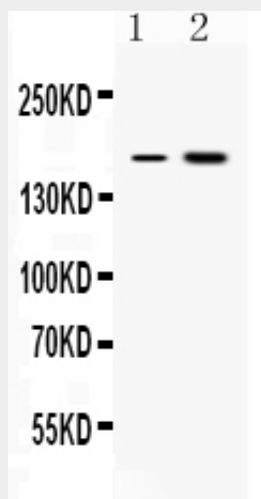
Nucleus. Chromosome Note=Recognizes and binds RNA polymerase II stalled at DNA damage sites.

Anti-CSB Picoband Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-CSB Picoband Antibody - Images



Western blot analysis of CSB expression in rat liver extract (lane 1) and COLO320 whole cell lysates (lane 2). CSB at 168KD was detected using rabbit anti- CSB Antigen Affinity purified polyclonal antibody (Catalog # ABO11678) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-CSB Picoband Antibody - Background

DNA excision repair protein ERCC-6 (also CS-B protein) is a protein that in humans is encoded by the ERCC6 gene. This gene encodes a DNA-binding protein that is important in transcription-coupled excision repair. The encoded protein has ATP-stimulated ATPase activity, interacts with several transcription and excision repair proteins, and may promote complex formation at DNA repair sites. Mutations in this gene are associated with Cockayne syndrome type B and cerebrooculofacioskeletal syndrome 1. Alternative splicing occurs between a splice site from exon 5 of this gene to the 3' splice site upstream of the open reading frame (ORF) of the adjacent gene, piggyback-derived-3, which activates the alternative polyadenylation site downstream of the piggyback-derived-3 ORF. The resulting transcripts encode a fusion protein that shares sequence with the product of each individual gene.