Anti-ERCC8 Antibody [PSH0-86]

HA721521

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB
Molecular Wt:	Predicted band size: 44 kDa
Clone number:	PSH0-86

Description: DNA excision repair protein ERCC-8 is a protein that in humans is encoded by the ERCC8 gene. This gene encodes a WD repeat protein, which interacts with the Cockayne syndrome type B (CSB) and p44 proteins, the latter being a subunit of the RNA polymerase II transcription factor II H. Mutations in this gene have been identified in patients with the hereditary disease Cockayne syndrome (CS). CS is an accelerated aging disorder characterized by photosensitivity, impaired development and multi-system progressive degeneration. The CS cells are abnormally sensitive to ultraviolet radiation and are defective in the repair of transcriptionally active genes. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. CS arises from germline mutations in either of two genes CSA(ERCC8) or CSB(ERCC6). CSA mutations generally give rise to a more moderate form of CS than CSB mutations. Mutations in the CSA gene account for about 20% of CS cases. CSA and CSB proteins are thought to function in transcription and DNA repair, most notably in transcription-coupled nucleotide excision repair. CSA and CSB-deficient cells exhibit a lack of preferential repair of UV-induced cyclobutane pyrimidine dimers in actively transcribed genes, consistent with a failed transcription coupled nucleotide excision repair response.[9] Within the cell, the CSA protein localizes to sites of DNA damage, particularly inter-strand cross-links, double-strand breaks and some mono-adducts.

Immunogen:	Recombinant protein within human ERCC8 aa 1-396 / 396.
Positive control:	293T cell lysate, SH-SY5Y cell lysate, HepG2 cell lysate.
Subcellular location:	Nucleus, Nucleus matrix.
Database links:	SwissProt: Q13216 Human
Recommended Dilutions:	
WB	1:1,000-1:5,000
Storage Buffer:	PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

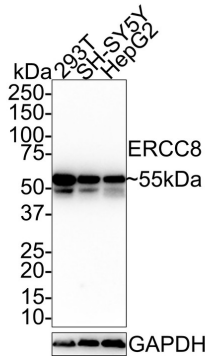


Fig1: Western blot analysis of ERCC8 on different lysates with Rabbit anti-ERCC8 antibody (HA721521) at 1/1,000 dilution.

Lane 1: 293T cell lysate
Lane 2: SH-SY5Y cell lysate
Lane 3: HepG2 cell lysate

Lysates/proteins at 30 µg/Lane.

Predicted band size: 44 kDa
Observed band size: 55 kDa

Exposure time: 27 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721521) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

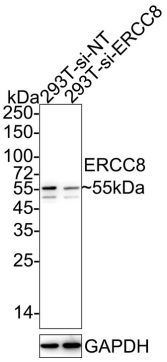


Fig2: Western blot analysis of ERCC8 on different lysates with Rabbit anti-ERCC8 antibody (HA721521) at 1/5,000 dilution.

Lane 1: 293T-si NT cell lysate
Lane 2: 293T-si ERCC8 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 44 kDa
Observed band size: 55 kDa

Exposure time: 11 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721521) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Sui X et al. Identification of ERCC8 as a novel cisplatin-resistant gene in esophageal cancer based on genome-scale CRISPR/Cas9 screening. Biochem Biophys Res Commun. 2022 Feb
2. Hao XD et al. Insufficient Dose of ERCC8 Protein Caused by a Frameshift Mutation Is Associated With Keratoconus With Congenital Cataracts. Invest Ophthalmol Vis Sci. 2022 Dec