abcam

ab76236

Anti-ERCC1 antibody [EP2143Y]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP2143Y
Purification technique	Affinity purification Protein A
Specificity	ab76236 might also detect a heterodimer composed of ERCC1 and XPF/ERCC4 at 100-150 kDa.
Concentration	0.229 - 0.254 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human
Dilution info	-

Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/5000
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20 - 1/30
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target data

See full target information ERCC1

Function	Isoform 1. Non-catalytic component of a structure-specific DNA repair endonuclease responsible for the 5'-incision during DNA repair. Responsible, in conjunction with SLX4, for the first step in the repair of interstrand cross-links (ICL). Participates in the processing of anaphase bridge-generating DNA structures, which consist in incompletely processed DNA lesions arising during S or G2 phase, and can result in cytokinesis failure. Also required for homology-directed repair (HDR) of DNA double-strand breaks, in conjunction with SLX4. Isoform 2. Not functional in the nucleotide excision repair pathway. Isoform 3. Not functional in the nucleotide excision repair pathway. Isoform 4. Not functional in the nucleotide excision repair pathway.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Storage information	Stable for 12 months at -20°C

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ERCC1 also known as Excision Repair Cross-Complementation Group 1 is an essential protein in DNA repair mechanisms. Weighing approximately 36 kDa ERCC1 is expressed in a variety of tissues throughout an organism. It carries out its function by forming a heterodimer with XPF which is a structure-specific endonuclease playing a vital role in the nucleotide excision repair (NER) pathway that helps maintain genomic stability. The presence of an antibody like 8F1 can be helpful for detecting the ERCC1 protein expression in biological samples through techniques like ELISA.

Biological function summary	ERCC1 plays a significant role in the DNA damage repair process where it interacts with its partner protein XPF to excise damaged DNA. The ERCC1-XPF complex recognizes and cuts both single- and double-stranded DNA therefore enabling the removal of DNA lesions caused by UV radiation or chemical mutagens. This action prevents mutations by ensuring accurate DNA replication and transcription.
Pathways	The ERCC1 protein is primarily involved in the nucleotide excision repair (NER) and interstrand cross-link repair pathways. Within these pathways ERCC1 provides repair capacity to the cell maintaining the functionality of the DNA by partnering with proteins such as XPF and participating in cross-link repair mechanisms. By coordinating with proteins like XPA and RPA ERCC1 assists in identifying and binding the damaged DNA facilitating the recruitment of other repair proteins.
Associated diseases and disorders	The ERCC1 protein is linked to conditions such as Xeroderma Pigmentosum and Fanconi Anemia largely due to its critical role in DNA repair. Malfunctions or deficiencies in ERCC1 or its partner proteins can lead to compromised DNA repair resulting in susceptibility to cancer and other genomic instability disorders. ERCC1's relationship with proteins that partake in cell cycle regulation further emphasizes its impact on disease progression linking it with potential therapeutic targets for addressing these genetic disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

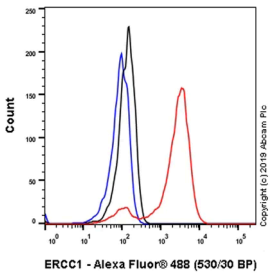
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

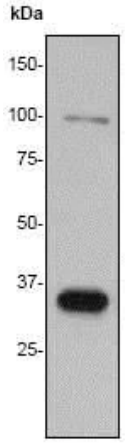
2 product images



Flow Cytometry (Intracellular) - Anti-ERCC1 antibody [EP2143Y] (ab76236)

ERCC1 Flow Cytometry (Intracellular) staining using rabbit Anti-ERCC1 antibody

Intracellular Flow Cytometry analysis of SKBR-3 (Human breast adenocarcinoma epithelial cell) cells labeling ERCC1 with purified ab76326 at 1/20 dilution (12.5µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488, ab150077) secondary antibody was used at 1/2000 dilution.
Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / blue.



Western blot - Anti-ERCC1 antibody [EP2143Y] (ab76236)

The 100 kDa band may represent a heterodimer composed of ERCC1 and XPF/ERCC4.
All lanes:
Western blot - Anti-ERCC1 antibody [EP2143Y] (ab76236) at 1/2000 dilution

All lanes:
SKBR-3 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 33 kDa

Observed band size: 100 kDa, 36 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.