abcam

ab284749

Anti-ERCC1 antibody [EP2143Y] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EP2143Y
Purity	Tissue culture supernatant
Specificity	ab76236 might also detect a heterodimer composed of ERCC1 and XPF/ERCC4 at 100-150 kDa.

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	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
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	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab284749 is the carrier-free version of ab76236

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

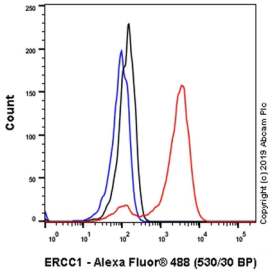
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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

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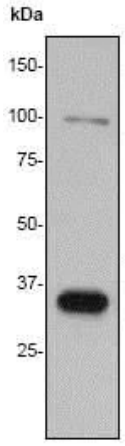


Flow Cytometry (Intracellular) - Anti-ERCC1 antibody [EP2143Y] - BSA and Azide free (ab284749)

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

This data was developed using ab76236, the same antibody clone in a different buffer formulation. 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] - BSA and Azide free (ab284749)

This data was developed using ab76236, the same antibody clone in a different buffer formulation. 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'.