abcam

ab249264

Anti-K23 antibody [EPR10943] - 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	EPR10943
Purification technique	Affinity purification Protein A
Concentration	1.003 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information Keratin, type I cytoskeletal 23

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab249264 is the carrier-free version of ab156569.

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.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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	K23 also known as SUMO-3 is a small ubiquitin-like modifier protein with a mass of approximately 11 kDa. It shares structural similarities with ubiquitin allowing it to form covalent attachments to target proteins. K23 is ubiquitously expressed in the cell primarily in the nucleus but also found in the cytoplasm. The protein is involved in various cellular processes through reversible post-translational modifications.

Biological function summary	The attachment of K23 to target proteins influences their stability localization and interactions. It often modifies transcription factors and other nuclear proteins altering gene expression patterns. K23 is part of the SUMO modification complex that includes enzymes like E1-activating E2-conjugating and E3-ligase proteins. This post-translational modification process affects several cellular pathways and maintains cellular homeostasis.
Pathways	SUMOylation influences important pathways like DNA damage response and cell cycle regulation. K23 plays a significant role in DNA repair mechanisms and mitotic progression by modifying proteins such as p53 and RanGAP1. These modifications are vital for the proper execution of cellular tasks and communication with related proteins that share these pathways including SUMO-1 and SUMO-2 which often compensate for each other's functions.
Associated diseases and disorders	Dysfunction in K23 modification contributes to conditions like cancer and neurodegenerative diseases. In cancers abnormal SUMOylation mediated by K23 impacts cellular proliferation and survival pathways often involving dysregulation of proteins like p53. Neurodegenerative diseases also show altered levels of SUMOylated proteins implicating K23 in modifications that affect neuronal function and integrity. Researchers focus on these diseases to explore therapeutic potential targeting the SUMOylation pathway.

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

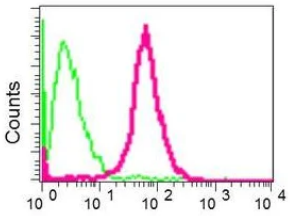
We do not recommend this combination. It is not covered by our product promise.

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.

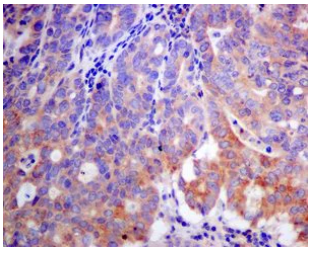
3 product images



Flow Cytometry (Intracellular) - Anti-K23 antibody [EPR10943] - BSA and Azide free (ab249264)

K23 Flow Cytometry (Intracellular) staining using rabbit Anti-K23 antibody

This data was developed using ab156569, the same antibody clone in a different buffer formulation.
Intracellular flow cytometrical analysis of permeabilized JAR cells with ab156569 antibody at a dilution of 1/10 (red) compared to a rabbit IgG (green).

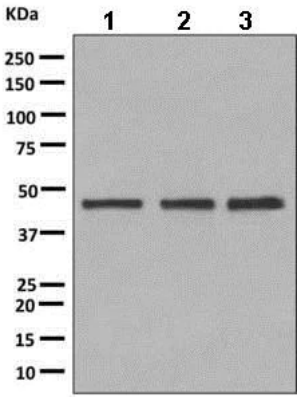


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-K23 antibody [EPR10943] - BSA and Azide free (ab249264)

K23 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-K23 antibody

This data was developed using ab156569, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin embedded Human gastric carcinoma tissue labeling K23 with ab156569 antibody at 1/150.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-K23 antibody [EPR10943] - BSA and Azide free (ab249264)

This data was developed using ab156569, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-K23 antibody [EPR10943] (ab156569) at 1/1000 dilution

Lane 1:
HepG2 cell lysate at 10 µg

Lane 2:
JAR cell lysate at 10 µg

Lane 3:
BxPC-3 cell lysate at 10 µg

Secondary

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

Predicted band size: 48 kDa

Observed band size: 48 kDa

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