abcam

ab239006

Anti-Uroplakin III antibody [EPR14420] - 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	EPR14420
Purification technique	Affinity purification Protein A
Concentration	0.925 - 1.063 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information UPK3A

Function	Component of the asymmetric unit membrane (AUM); a highly specialized biomembrane elaborated by terminally differentiated urothelial cells. May play an important role in AUM-cytoskeleton interaction in terminally differentiated urothelial cells. It also contributes to the formation of urothelial glycocalyx which may play an important role in preventing bacterial adherence (By similarity).

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

ab239006 is the carrier-free version of ab187646.

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	Uroplakin III also known as UPK3 or UPIII is a transmembrane protein with a molecular weight of around 47 kDa. It is specifically expressed in the urothelium which lines the urinary tract including the bladder ureter and renal pelvis. Uroplakin III plays a structural role by contributing to the formation of the asymmetric unit membrane important for the stability and impermeability of the urothelial barrier.
Biological function summary	Uroplakin III takes part in the formation of the uroplakin complex which includes UPIa UPIb and UPII. It interacts with these proteins to form the urothelial plaques that are essential in maintaining the integrity of the urothelial surface. These plaques prevent urine from permeating back into the underlying tissues ensuring proper urinary function. Uroplakin III also participates in signal transduction mechanisms that may regulate cell proliferation within the urothelial lining.
Pathways	Uroplakin III works within the context of membrane assembly and bladder epithelium differentiation. It interacts with proteins like other uroplakins and cytoskeletal components to mediate the formation of apical urothelial plaques. The protein contributes to signaling pathways that involve cellular differentiation and proliferation ensuring the proper function and renewal of urothelial tissue.
Associated diseases and disorders	Uroplakin III shows significant relevance in the context of bladder carcinoma and interstitial cystitis. Bladder carcinoma often exhibits altered expression of Uroplakin III suggesting its potential role as a diagnostic marker. In interstitial cystitis changes in Uroplakin III distribution might contribute to the compromised barrier function. Its altered interaction with proteins like uroplakin II can emphasize the link between these structural changes and disease progression.

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

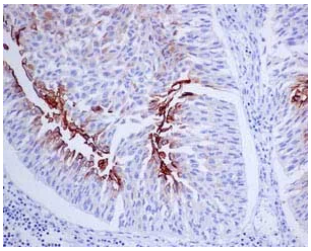
We do not recommend this combination. It is not covered by our product promise.

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

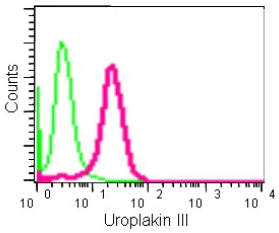


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Uroplakin III antibody [EPR14420] - BSA and Azide free (ab239006)

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

Immunohistochemical analysis of paraffin-embedded Human urothelium carcinoma tissue labeling Uroplakin III with ab187646 at 1/32000 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab187646).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Uroplakin III antibody [EPR14420] - BSA and Azide free (ab239006)

Uroplakin III Flow Cytometry (Intracellular) staining using rabbit Anti-Uroplakin III antibody

Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HeLa cells labeling Uroplakin III with ab187646 at 1/130 dilution compared to a Rabbit monoclonal IgG isotype control, followed by Goat anti rabbit IgG (FITC) secondary antibody at 1/150 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab187646).

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