abcam

Product datasheet

Anti-UMOD antibody [EPR20071] - BSA and Azide free ab223540

Recombinant RabMAb

6 Images

Overview

Product name	Anti-UMOD antibody [EPR20071] - BSA and Azide free
Description	Rabbit monoclonal [EPR20071] to UMOD - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, IP, WB
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human urine and fetal kidney lysate; mouse and rat kidney lysates. IHC-P: Human, mouse and rat kidney tissues. IP: Human kidney lysate.
General notes	ab223540 is the carrier-free version of **ab207170**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR20071
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab223540 in the following tested applications.

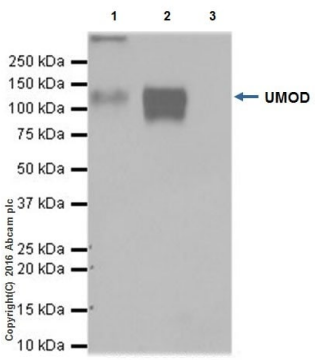
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 110 kDa (predicted molecular weight: 70 kDa).

Target

Function	Not known. May play a role in regulating the circulating activity of cytokines as it binds to IL-1, IL-2 and TNF with high affinity.
Tissue specificity	Synthesized by kidney. Most abundant protein in normal human urine.
Involvement in disease	Defects in UMOD are the cause of familial juvenile hyperuricemic nephropathy type 1 (HNFJ1) [MIM:162000]. HNFJ1 is a renal disease characterized by juvenil onset of hyperuricemia, polyuria, progressive renal failure, and gout. The disease is associated with interstitial pathological changes resulting in fibrosis. Defects in UMOD are the cause of medullary cystic kidney disease type 2 (MCKD2) [MIM:603860]. MCKD2 is a form of tubulointerstitial nephropathy characterized by formation of renal cysts at the corticomedullary junction. It is characterized by adult onset of impaired renal function and salt wasting resulting in end-stage renal failure by the sixth decade. Defects in UMOD are the cause of glomerulocystic kidney disease with hyperuricemia and isosthenuria (GCKDHI) [MIM:609886]. GCKDHI is a renal disorder characterized by a cystic dilation of Bowman space, a collapse of glomerular tuft, and hyperuricemia due to low fractional excretion of uric acid and severe impairment of urine concentrating ability.
Sequence similarities	Contains 3 EGF-like domains. Contains 1 ZP domain.
Cellular localization	Cell membrane. Secreted. Secreted after cleavage in the urine.

Images



Immunoprecipitation - Anti-UMOD antibody [EPR20071] - BSA and Azide free (ab223540)

UMOD was immunoprecipitated from 0.35 mg of mouse kidney lysate with **ab207170** at 1/30 dilution.

Western blot was performed from the immunoprecipitate using **ab207170** at 1/1000 dilution.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/1000 dilution.

Lane 1: Human kidney lysate 10µg (Input).

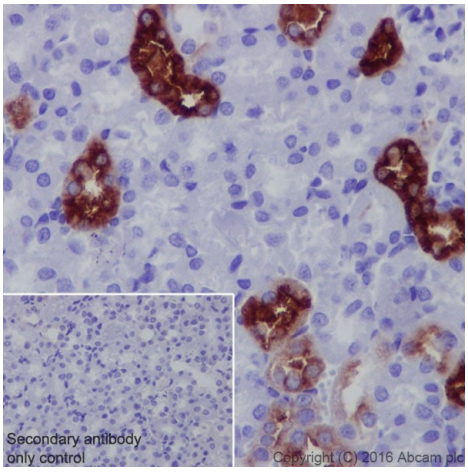
Lane 2: **ab207170** IP in human kidney lysate.

Lane 3: Rabbit IgG, monoclonal [EPR25A] - Isotype Control (**ab172730**) instead of **ab207170** in human kidney lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 0.5 second.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207170**).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UMOD antibody [EPR20071] - BSA and Azide free (ab223540)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling UMOD with **ab207170** at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

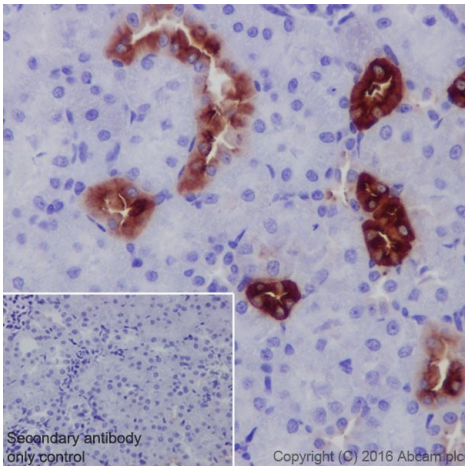
Strong cytoplasmic staining on distal convoluted tubules of mouse kidney is observed [PMID: 23988501].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab207170**).

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UMOD antibody [EPR20071] - BSA and Azide free (ab223540)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling UMOD with **ab207170** at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

Strong cytoplasmic staining on distal convoluted tubules of rat kidney is observed [PMID: 23988501].

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

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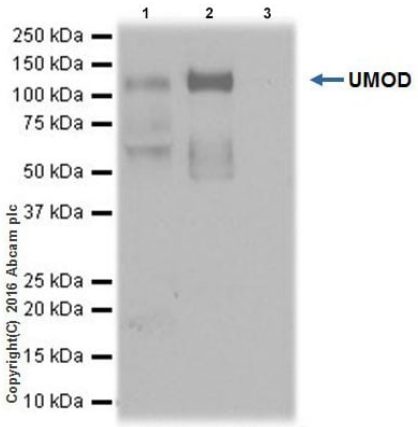

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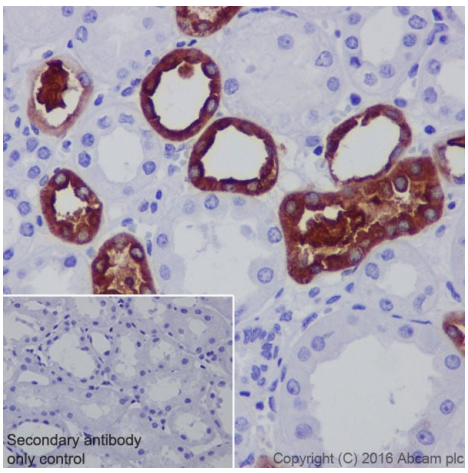

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-UMOD antibody [EPR20071] - BSA and Azide free (ab223540)

This IHC data was generated using the same anti-UMOD antibody clone [EPR20071] in a different buffer formulation (cat# **ab207170**).

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling UMOD with **ab207170** at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

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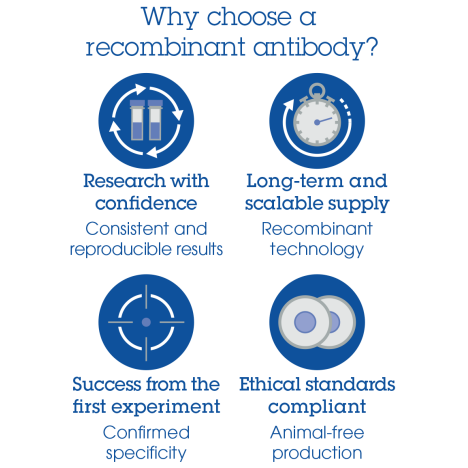

Anti-UMOD antibody [EPR20071] - BSA and Azide free (ab223540)

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