

Rabbit UMOD Polyclonal Antibody | anti-UMOD antibody

Anti-UMOD Antibody

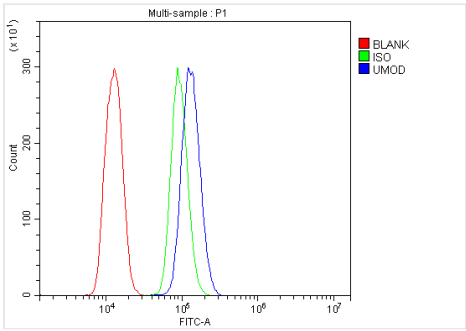
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125603	Rabbit	Human, Mouse, Rat, Monkey	ELISA, Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

UMOD; Polyclonal Antibody; Anti-UMOD Antibody; Uromodulin; Tamm-Horsfall urinary glycoprotein; THP [Cleaved into: Uromodulin; secreted form]; uromodulin; anti-UMOD antibody

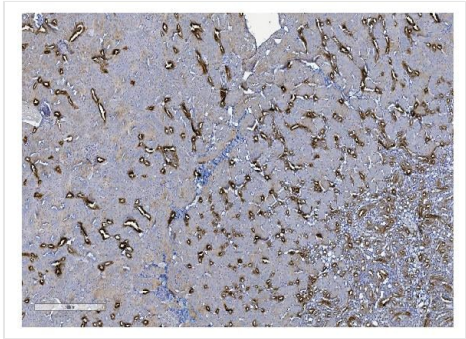
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Monkey
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for UMOD detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Applicable Applications for anti-UMOD antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human UMOD recombinant protein (Position: E43-S618).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



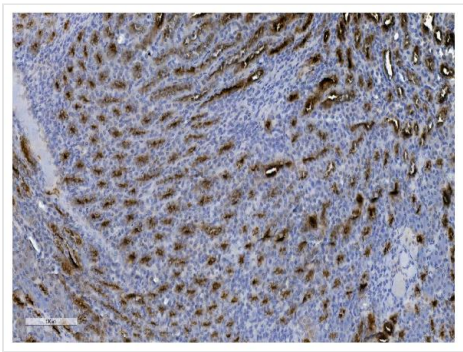
FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of U937 cells using anti-UMOD antibody (AAA125603).Overlay histogram showing U937 cells stained with AAA125603 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-UMOD Antibody (AAA125603,1μg/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



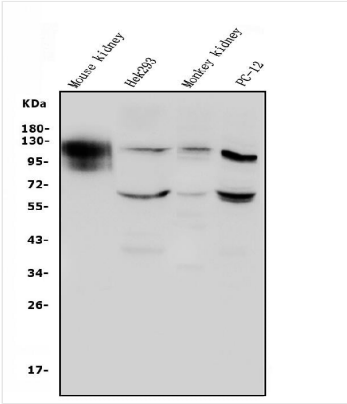
IHC (Immunohistochemistry)

Figure 2. IHC analysis of UMOD using anti UMOD antibody (AAA125603).UMOD was detected in paraffin-embedded section of mouse kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-UMOD Antibody (AAA125603) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 3. IHC analysis of UMOD using anti UMOD antibody (AAA125603).UMOD was detected in paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8. 0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2μg/ml rabbit anti-UMOD Antibody (AAA125603) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of UMOD using anti-UMOD antibody (AAA125603).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.Lane 1: mouse kidney tissue lysatesLane 2: human HEK293 whole cell lysatesLane 3: monkey kidney tissue lysatesLane 4: rat PC-12 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1. 5 hour at RT. The membrane was incubated with rabbit anti-UMOD antigen affinity purified polyclonal antibody (Catalog # AAA125603) at 0. 5 μg/mL overnight at 4 degree C, then washed with TBS-0. 1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1. 5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for UMOD at approximately 110KD. The expected band size for UMOD is at 110KD.

ADDITIONAL INFORMATION

Related Product Information for anti-UMOD antibody

Uromodulin (UMOD), also known as Tamm-Horsfall protein (THP), is a glycoprotein that in humans is encoded by the UMOD gene. The protein encoded by this gene is the most abundant protein in mammalian urine under physiological conditions. Its excretion in urine follows proteolytic cleavage of the ectodomain of its glycosyl phosphatidylinositol-anchored counterpart that is situated on the luminal cell surface of the loop of Henle. This protein may act as a constitutive inhibitor of calcium crystallization in renal fluids. Excretion of this protein in urine may provide defense against urinary tract infections caused by uropathogenic bacteria. Defects in this gene are associated with the renal disorders medullary cystic kidney disease-2 (MCKD2), glomerulocystic kidney disease with hyperuricemia and isosthenuria (GCKDHI), and familial juvenile hyperuricemic nephropathy (FJHN). Alternative splicing of this gene results in multiple transcript variants.

References	1. Bachmann, S., Mutig, K., Bates, J., Welker, P., Geist, B., Gross, V., Luft, F. C., Alenina, N., Bader, M., Thiele, B. J., Prasadani, K., Raffi, H. S., Kumar, S. Renal effects of Tamm-Horsfall protein (uromodulin) deficiency in mice. <i>Am. J. Physiol. Renal Physiol.</i> 288: F559-F567, 2005. 2. Bernascone, I., Janas, S., Ikehata, M., Trudu, M., Corbelli, A., Schaeffer, C., Rastaldi, M. P., Devuyst, O., Rampoldi, L. A transgenic mouse model for uromodulin-associated kidney diseases shows specific tubulo-interstitial damage, urinary concentrating defect and renal failure. <i>Hum. Molec. Genet.</i> 19: 2998-3010, 2010. 3. Dahan, K., Devuyst, O., Smaers, M., Vertommen, D., Loute, G., Poux, J. M., Viron, B., Jacquot, C., Gagnadoux, M. F., Chauveau, D., Buchler, M., Cochat, P., Cosyns, J. P., Mougnot, B., Rider, M. H., Antignac, C., Verellen-Dumoulin, C., Pirson, Y. A cluster of mutations in the UMOD gene causes familial juvenile hyperuricemic nephropathy with abnormal expression of uromodulin. <i>J. Am. Soc. Nephrol.</i> 14: 2883-2893, 2003.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	59850812
NCBI GeneID	7369
NCBI Accession #	NP_003352.2
NCBI GenBank Nucleotide #	NM_003361.3
UniProt Accession #	P07911; Q540J6; Q6ZS84; Q8YGO; B3KP48; B3KRN9; E9PEA4
Molecular Weight	69,761 Da
NCBI Official Full Name	uromodulin isoform a preproprotein
NCBI Official Synonym Full Names	uromodulin
NCBI Official Symbol	UMOD
NCBI Official Synonym Symbols	THP; FJHN; HNFJ; THGP; HNFJ1; MCKD2; ADMCKD2
NCBI Protein Information	uromodulin; uromucoid; Tamm-Horsfall urinary glycoprotein
UniProt Protein Name	Uromodulin
UniProt Gene Name	UMOD
UniProt Synonym Gene Names	THP
UniProt Entry Name	UROM_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.