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# UMOD Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14256C

## Product Information

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| **Application** | IHC-P, WB, E |
| **Primary Accession** | P07911 |
| **Other Accession** | NP_003352.2, NP_001008390.1 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | RB34670 |
| **Calculated MW** | 69761 |
| **Antigen Region** | 352-380 |

## Additional Information

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| **Gene ID** | 7369 |
| **Other Names** | Uromodulin, Tamm-Horsfall urinary glycoprotein, THP, Uromodulin, secreted form, UMOD |
| **Target/Specificity** | This UMOD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 352-380 amino acids from the Central region of human UMOD. |
| **Dilution** | IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration. |
| **Format** | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification. |
| **Storage** | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | UMOD Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | UMOD |
| **Function** | [Uromodulin]: Functions in biogenesis and organization of the apical membrane of epithelial cells of the thick ascending limb of Henle's loop (TALH), where it promotes formation of complex filamentous gel-like |

structure that may play a role in the water barrier permeability (Probable). May serve as a receptor for binding and endocytosis of cytokines (IL-1, IL-2) and TNF (PubMed:3498215). Facilitates neutrophil migration across renal epithelia (PubMed:20798515).

**Cellular Location**

Apical cell membrane; Lipid-anchor, GPI-anchor. Basolateral cell membrane; Lipid-anchor, GPI-anchor. Cell projection, cilium membrane. Note=Only a small fraction sorts to the basolateral pole of tubular epithelial cells compared to apical localization (PubMed:22776760). Secreted into urine after cleavage (PubMed:18375198, PubMed:26811476). Colocalizes with NPHP1 and KIF3A (PubMed:20172860).

**Tissue Location**

Expressed in the tubular cells of the kidney. Most abundant protein in normal urine (at protein level). Synthesized exclusively in the kidney. Expressed exclusively by epithelial cells of the thick ascending limb of Henle's loop (TALH) and of distal convoluted tubule lumen.

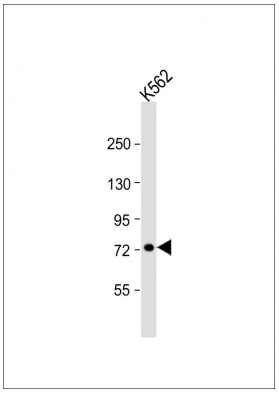
## Background

This gene encodes uromodulin, the most abundant protein in normal urine. Its excretion in urine follows proteolytic cleavage of the ectodomain of its glycosyl phosphatidylinosital-anchored counterpart that is situated on the luminal cell surface of the loop of Henle. Uromodulin may act as a constitutive inhibitor of calcium crystallization in renal fluids. Excretion of uromodulin in urine may provide defense against urinary tract infections caused by uropathogenic bacteria. Defects in this gene are associated with the autosomal dominant renal disorders medullary cystic kidney disease-2 (MCKD2) and familial juvenile hyperuricemic nephropathy (FJHN). These disorders are characterized by juvenile onset of hyperuricemia, gout, and progressive renal failure. While several transcript variants may exist for this gene, the full-length natures of only two have been described to date. These two represent the major variants of this gene and encode the same isoform.

## References

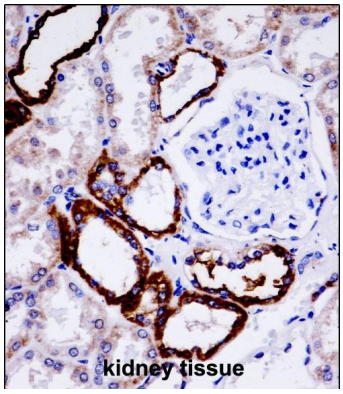
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Kottgen, A., et al. Nat. Genet. 42(5):376-384(2010)
Davila, S., et al. Genes Immun. 11(3):232-238(2010)
Gudbjartsson, D.F., et al. PLoS Genet. 6 (7), E1001039 (2010) :
Pattaro, C., et al. BMC Med. Genet. 11, 41 (2010) :

## Images




Anti-UMOD Antibody (Center) at 1:1000 dilution + K562 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 70 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

UMOD Antibody (Center) (AP14256c)immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue




followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of UMOD Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

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