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**Product Data Sheet**


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Product Name: UMOD Canine  
 Cat. No.: GP22382  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	Canine Urine.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Tamm-Horsfall urinary glycoprotein; THP; FJHN; HNFJ; THGP; MCKD2; ADMCKD2; UMOD; Uromodulin.		
Amino Acid Sequence	<p>RSCSECHSNA TCMEDGMVTT CSCLVGFTGS GFECVDLDEC AIPGAHNCSE          GSSCMNTLGS YLCTCPDGFR LTPGLGCIDV DECSEPGLSR CHALATCINN          KGNYSVCVCPA GYRGDQHCCE CSPGSCGPGL DCVPVGDALV CADPCQEHRI          LDEYWRSTEY GAGYTCDVGL NGWYRFTGPG GVRLAETCVP VLHCNTAAPM          WLNGTHPTRD QGIVNRTACA HWRGHCLLD ASIQVKACAG GYYVYNLTET          PECYLAYCTD PTSVLGTCEE CSVEEDCKSH DGMWSCQCKQ DFNVTDLFLL          DRLECRPNDI KVSLSKCQLK SLGFEKVFMY LRDSQCSGFN ERGDRDWVSV          VTPARDGPCG TVMVRNETHA TYSNTLYLAD EIVIRDRNIK INFECYPLD          MKVSLETSLQ PIVSSLNISV GGTGMFTVRM ALFQTPDYTQ PYQGSSVTLT          TEAFLYVGTM LDGGDLRFA LLMTNCYATP SSNATDPLKY FIIQDRCPR          TDSTIQVVEN GESPQGRFSV QMFRFAGNYD LVYLHCEVYL CDIINEKCKP          TCSGTRFRSG GIIDQSRVLN LGPITRKNVQ AVVSRAASS.</p>		
Solubility	Add deionized water to prepare a working stock solution of approximately 0.5mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.		
Formulation	The UMOD protein was lyophilized from 0.4µm filtered solution at a concentration of 0.1mg/ml containing deionized water.		

**Introduction**

Uromodulin is the most abundant protein in normal urine. Its secretion 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. Uromodulin

**Caution: Product has not been fully validated for medical applications. For research use only.**

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plays a role as a constitutive inhibitor of calcium crystallization in renal fluids. Secretion of uromodulin in urine provides protection against urinary tract infections caused by uropathogenic bacteria. Defects in Uromodulin expression 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 nature of only two have been described to date. UMOD is involved in regulating the circulating activity of cytokines as it binds to il-1, il-2 and tnf with high affinity.

### Stability

Lyophilized UMOD although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution UMOD should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

UMOD is an 85-kDa glycoprotein which is produced in the thick ascending limb of Henle's loop and early distal convoluted tubules of the nephron.

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