

Native Canine Uromodulin

Catalog No.	CS430A CS430B CS430C	Quantity:	2 µg 10 µg 1 mg
Alternate Names:	Tamm-Horsfall urinary glycoprotein, THP, FJHN, HNFJ, THGP, MCKD2, ADMCKD2, UMOD, Uromodulin.		
Description:	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 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 natures 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. 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.		
Physical Appearance:	Filtered White lyophilized (freeze-dried) powder.		
Source:	Canine Urine		
Formulation:	The UMOD protein was lyophilized from 0.4 µm filtered solution at a concentration of 0.1mg/mL containing deionized water.		
Amino Acid Sequence:	RSCSECHSNA TCMEDGMVTT CSCLVGFTGS GFECVDLDEC AIPGAHNCSE GSSCMNTLGS YLCTCPDGFR LTPGLGCIDV DECSEPGLSR CHALATCINN KGNYSVCVCPA GYRGDQHQCE CSPGSCGPG DCVPVGDALV CADPCQEHR LDEYWRSTY GAGYTCVGL NGWYRFTGPG GVRLAETCVP VLHCNTAAPM WLNTHPTRD QGIVNRTACA HWRGHCLLD ASIQVKACAG GYYVYNLTET PECYLAYCTD PTSVLGTCEE CSVEEDCKSH DGMWSCQCKQ DFNVTDLFLL DRLECRPNDI KVSLSKCQLK SLGFVKVFMV LRDSQCSGFN ERGDRDWVSV VTPARDGPCG TVMVRNETHA TYSNTLYLAD EIVIRDRNIK INFECYPLD MKVSLETSLQ PIVSSLNISV GGTGMFTVRM ALFQTPDYTQ PYQGSSVTLT TEAFLYVGTM LDGGDLRFAL LLMTNCYATP SSNATDPLKY FIIQDRCPRT TDSTIQVVEN GESPQGRFSV QMFRFAGNYD LVYLHCEVYL CDIINEKCKP TCSGTRFRSG GIIDQSRVLN LGPITRKNVQ AVVSRAASS		
Reconstitution:	Add deionized water to prepare a working stock solution of approximately 0.5 mg/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.		
Storage & Stability:	Lyophilized UMOD although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution UMOD should be stored at 4°C between 2 -7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein Please prevent freeze-thaw cycles.		

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