

人Vanin-1（尿液）ELISA检测试剂盒

Vanin 1 and kidney disease

Biomedica提供首个经过充分验证的VANIN-1（尿液）ELISA

- **高特异性：** 抗体和试剂高特异性
- **样品稳定性：** 冻融循环后，样品浓度平均回收率为96%
- **高精度度：** 高标准的批内精度与批间精度
- **较少样本量：** 只需10 μ l
- **稀释性线度和平行度：** 科学评估稀释临床样品中的测量准确性



- Vanin-1具有广泛的组织表达，在肾小管上皮细胞中观察到最高水平。Vanin-1的GPI锚可以通过未知的机制裂解，从而导致Vanin-1被掉进细胞外空间。
- Vanin-1是一种上皮细胞外酶，可激活泛素向泛酸（维生素B5）和半胱胺的转化。已有研究表明Vanin-1释放的半胱胺可通过抑制超氧化物歧化酶（SOD）和谷胱甘肽（GSH）等抗氧化剂的活性来促进氧化性组织损伤和炎症。
- Vanin-1表达的最高水平可能归因于肾小管上皮细胞，而肾小球中没有检测到表达。因此，从肾细胞释放的Vanin-1可以在尿液中检测到。

应用领域

骨学

肿瘤学

肾脏学

心血管

中国总代理商：北京荣志海达生物科技有限公司

010-58895809 18901322276 18927505895

E-mail: market@rz-biotech.com sales@gucon.com



试剂盒信息

货号	
方法学	夹心ELISA, HRP/TMB, 12×8人份测试
样本类型	尿
标准品范围	0-1,200 pmol/l (7个标准品)
标准品	0/37.5/75/150/300/600/1200 pmol/l
质控品	2个
样本量	10 μl /测试
孵育时间	4h/30min
单位换算	1pg /ml= 0.0192 pmol/l (MW:52.07 kDa)
灵敏度	LOD: 9.6 pmol/l (0 pmol/l + 3 SD); LLOQ: 38pmol/l
精密度	批内差 (n=3) ≤ 5%, 批间差 (n=9) ≤ 7%
稳定性	四个冻融循环后为96% 室温下三小时后为99% 4℃储存过夜后为87%
应用范围	急性肾损伤、糖尿病肾病、药物引起的急性肾损伤、肾积水

参考文献

1. Vanin-1^{-/-} mice exhibit a glutathione-mediated tissue resistance to oxidative stress. Berruyer, C., Martin, F.M., Castellano, R., Macone, A., Malergue, F., Garrido-Urbani, S., Millet, V., Imbert, J., Duprè, S., Pitari, G., Naquet, P., Galland, F., 2004. *Mol. Cell. Biol.* 24, 7214–7224.
2. The structure of vanin 1: a key enzyme linking metabolic disease and inflammation. Boersma, Y.L., Newman, J., Adams, T.E., Cowieson, N., Krippner, G., Bozaoglu, K., Peat, T.S., 2014. *Acta Crystallogr. D Biol. Crystallogr.* 70, 3320–3329.
3. Proteomic identification of vanin-1 as a marker of kidney damage in a rat model of type 1 diabetic nephropathy. Fugmann, T., Borgia, B., Révész, C., Godó, M., Forsblom, C., Hamar, P., Holthöfer, H., Neri, D., Roesli, C., 2011. *Kidney Int.* 80, 272–281.
4. Vanin-1 in Renal Pelvic Urine Reflects Kidney Injury in a Rat Model of Hydronephrosis. Hosohata, K., Jin, D., Takai, S., Iwanaga, K., 2018. *Int J Mol Sci* 19.
5. Early prediction of cisplatin-induced nephrotoxicity by urinary vanin-1 in patients with urothelial carcinoma. Hosohata, K., Washino, S., Kubo, T., Natsui, S., Fujisaki, A., Kurokawa, S., Ando, H., Fujimura, A., Morita, T., 2016a. *Toxicology* 359–360, 71–75.
6. Early detection of renal injury using urinary vanin-1 in rats with experimental colitis. Hosohata, K., Ando, H., Fujimura, A., 2014. *J Appl Toxicol* 34, 184–190.
7. Urinary Vanin-1 As a Novel Biomarker for Early Detection of Drug-Induced Acute Kidney Injury. Hosohata, K., Ando, H., Fujimura, A., 2012. *Journal of Pharmacology and Experimental Therapeutics* 341, 656–662.
8. Vanin-1: a potential biomarker for nephrotoxicant-induced renal injury. Hosohata, K., Ando, H., Fujiwara, Y., Fujimura, A., 2011. *Toxicology* 290, 82–88.
9. Is pantetheinase the actual identity of mouse and human vanin-1 proteins? Maras, B., Barra, D., Duprè, S., Pitari, G., 1999. *FEBS Letters* 461, 149–152.
10. Pantetheinase activity of membrane-bound Vanin-1: lack of free cysteamine in tissues of Vanin-1 deficient mice. Pitari, G., Malergue, F., Martin, F., Philippe, J.M., Massucci, M.T., Chabret, C., Maras, B., Duprè, S., Naquet, P., Galland, F., 2000. *FEBS Letters* 483, 149–154.