

Urine Creatinine Detection Kit

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CATALOG #
AAA103874

REACTIVITY
Human, Monkey, Dog, Rat

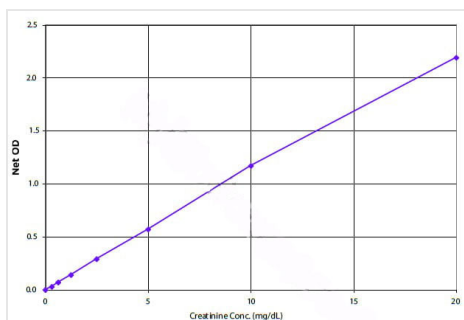
PRODUCT SYNONYMS

Urine Creatinine; Urine Creatinine Detection Kit; N-Carbamimidoyl-N-methylglycine Detection Kit; Methylguanidoacetic acid Detection Kit; Urine Creatinine detection kit

PRODUCT SPECIFICATIONS

Reactivity	Human, Monkey, Dog, Rat
Samples	Human, monkey, dog, and rat urine
Intra-assay Precision	Four human urine samples were diluted 1:20 with deionized water and run in replicates of 20 in an assay.
Inter-assay Precision	Four human urine samples were diluted 1:20 with deionized water and run in duplicates in 20 assays run over five days by three operators.
Preparation and Storage	Store at 4 degree C

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Urine Creatinine detection kit

Background: Creatinine (2-amino-1-methyl-5H-imidazol-4-one) is a metabolite of phosphocreatine (p-creatine), a molecule used as a store for high-energy phosphate that can be utilized by tissues for the production of ATP¹. Creatine either comes from the diet or synthesized from the amino acids arginine, glycine, and methionine. This occurs in the kidneys and liver, although other organ systems may be involved and species-specific differences may exist². Creatine and p-creatine are converted non-enzymatically to the metabolite creatinine, which diffuses into the blood and is excreted by the kidneys. In vivo, this conversion appears to be irreversible and in vitro it is favored by higher temperatures and lower pH². Creatinine forms spontaneously from p-creatine³. Under normal conditions, its formation occurs at a rate that is relatively constant and as intra-individual variation is <15% from day to day, creatinine is a useful tool for normalizing the levels of other molecules found in urine. Additionally altered creatinine levels may be associated with other conditions that result in decreased renal blood flow such as diabetes and cardiovascular disease⁴⁻⁶.

Product Categories/Family for Urine Creatinine detection kit

StressXpress Kits; Cell Signaling; Cardiovascular System

References

1. Wallimann, T. et al., Biochem. J., 2000, 281, 21-40.
2. Wyss, M. and Kaddurah-Daouk, R., Physiol. Rev., 2000, 80, 1107-1213.
3. Raja Iyengar, M. et al., J. Biol. Chem, 1985, 260, 7562-7567.
4. Manjunath, G. et al., Postgrad. Med. 2001, 110, 55-62.
5. Gross, J.L. et al., Diabetes Care, 2005, 28, 164-176.
6. Anavekar, N.S. et al., New Engl. J. Med., 2004, 351, 1285-1295.

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.

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Online datasheet: <https://stage.aaabiotech.com/dog-human-monkey-rat-detection-kits/urine-creatinine/103874>