Catecholamines by Immunoassay
The real alternative to HPLC
TriCat ELISA (RE59395)

IBL offers now a complete line of ELISAs for routine and research analysis of catecholamines. Using a single extraction procedure, the TriCat ELISA test system measures adrenalin, noradrenalin and dopamine in either plasma, urine, tissue or cell cultures. The data correlate well with those obtained by HPLC and show no drug interferences.

Potential customers are found in the following laboratories:
• Laboratory hospitals in Endocrinology, Nephrology, Hypertension, Research,
• Private laboratories,
• Dialysis centers with hypertensive patients,
• Veterinary research studies.
Principle of test: Solid phase enzyme-linked immunosorbent assay (ELISA) based on the sandwich principle. The wells are coated with a goat anti rabbit antibody. The added liquid antibody, directed towards an epitope of an antigen molecule binds to the plate within the incubation time. The antigen of the sample is incubated in the coated well with enzyme conjugated second antibody (E-Ab), directed towards a different region of the antigen molecule. After the substrate reaction the intensity of the developed color is proportional to the amount of the antigen. Results of samples can be determined directly using the standard curve.

Formate: 12 microtiter break apart strips with 8 wells each (96 determinations).

Sample size: 20 µL urine, 500 µL plasma

Incubations: Extraction: 35 min. at room temperature; Acylation: 20 min. at RT, Antiserum 2 hours at RT, ELISA: 60 min at RT; Substrate 40 min. at RT

Reference values: Urine: Adrenalin <20 µg/d, Noradrenalin <90 µg/d, Dopamine <600 µg/d. Plasma: Adrenalin <125 pg/mL, Noradrenalin <600 pg/mL, Dopamine <100 pg/mL

Standards: Each 6 standards Adrenalin, Noradrenalin Dopamine (ready for use):

Sensitivity: Urine: Adrenalin 0.3 ng/mL, Noradrenalin 0.6 ng/mL, Dopamine 5 ng/mL Plasma: Adrenalin 10 pg/mL, Noradrenalin 20 pg/mL, Dopamine 4 pg/mL

Specificity: Compound Cross reactivity (%)
Adrenalin 100
Noradrenalin 100
Dopamine 100
Normetanephrine <0.001
Metanephrine <0.002
3-Methoxtyramine <0.05

Advantages:
• after a common extraction analytes can be run simultaneously
• total working time is less than 6 hours for all three analytes
• due to use of highly specific antibodies no drug interferences
• assays can be run in single or double determinations
• kit applicable to animal studies
• excellent correlation with HPLC

Indications: Diagnosis and follow-up studies of pheochromocytoma and related tumors of neurogen origin. Investigations of stress related problems.