

Epinephrine

General:

Catecholamines are produced in brain, adrenal medulla, in extrarenal chromatic tissue as well as in sympathetic nerve endings (norsuprarenalin). The determination of adrenaline and noradrenaline as well as their reduction products (vanillyl mandelic acid, metanephrines, homovanillic acid) is important for the diagnostics of tumors of the sympatho-suprarenal system.

The following examinations are

- **Adrenaline (Epinephrine) in plasma**

Indication: suspicion of phaeochromocytoma, neuroblastoma, ganglioneuroma, arterial hypertension.

Material: 2 ml EDTA plasma frozen

Preanalytics: EDTA- or heparin-plasma frozen!

TAT: 7-10 days*

Method: HPLC

Units: ng/l

Ref.- range: <110

Note: determination in urine is more specific than in plasma.

- **Noradrenaline (Norepinephrine) in plasma**

Material: 2 ml EDTA plasma frozen

Method: HPLC

Units: ng/l

Ref.- range: <500

- **Dopamine in plasma**

Material: 2 ml EDTA plasma frozen

Method: HPLC

Units: ng/l

Ref.- range: <100

Note: The determination of catecholamines in 24 hours urine is of higher significance.

- **Adrenaline (Epinephrine), in urine**

Indication: suspicion of phaeochromocytoma, neuroblastoma, ganglioneuroma, arterial hy-pertension

Material: 10 ml 24-hour-urine

Preanalytics: please indicate total volume, add 10 ml of concentrated HCl into the 24 hour-collecting container prior to collection.

Method: HPLC

Units: µg/l

Ref.- range: 4 - 20 children up to 6 years: approx. 1/3

Note: The determination in urine is more significant than the determination in plasma. If possible the following drugs should be stopped 8 days before and during the urine collection period: α-methyldopa, clonidine, guanethidine, reserpine, β-blockers, and preparations containing quinidine, ampicillin, erythromycin or tetracycline. Several contrast media can cause in-vitro interferences with determination of catecholamines and their metabolites in urine. Following foods must be strictly avoided 2 days before and during urine collection period: coffee, black tea, bananas, cheese, cookies, cake and chocolate.

- **Noradrenaline (Norepinephrine) in urine**

Material: 10 ml 24-hour-urine

Preanalytics: please indicate total volume, add 10 ml of concentrated HCl into the 24 hour-collecting container prior to collection.

Method: HPLC

Units: µg/l

Ref.- range: 23 - 105 children up to 6 years: approx. 1/3

- **Dopamine in urine**

General:

Dopamine has α - and β - sympathomimetic characteristics. It increases the kidney blood circulation, urine secretion and CMO (cardiac minute output). Beside vanillyl mandelic acid (VMA), metanephrine, homovanillic acid (HVA), epinephrine and norepinephrine it belongs to the catecholamines and is biotransformed to homovanillic acid. The determination is important for diagnostics of tumors of the adrenal system. Function tests (e.g. clonidine test) are additionally recommended.

Indication: Suspicion of neuroblastoma, pheochromocytoma or ganglioneuroma, arterial hypertension clarification.

Material: 10 ml 24-hour-urine

Preanalytics: please indicate total volume, add 10 ml of concentrated HCl into the 24 hour-collecting container prior to collection.

Method: HPLC

Units: µg/l

Ref.- range: 190 - 450

Note: The following medication should be stopped 8 days before and during urine collection: α -methyldopa, clonidine, guanethidine, reserpine, β -blocker, quinidine-containing preparations, ampicillin, erythromycin and tetracycline. The following food products should be avoided 2 days before and during urine collection: coffee, black tea, bananas and cheese.

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>