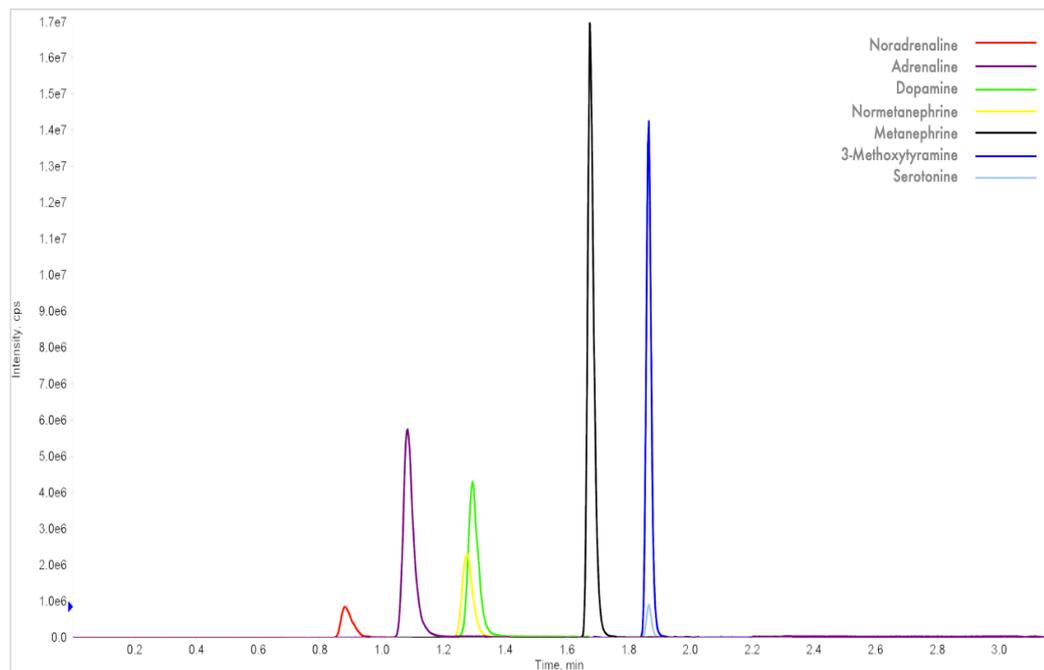


FLOMASS[®] CATHECOLAMINES, FREE METANEPHRINES AND SEROTONIN IN URINE

Catecholamines are neurotransmitters produced by the adrenal gland. Once released in the body, they induce physiological changes including an increase in heart rate and blood pressure. The release of these molecules also involves bronchodilation, tachypnea and reduction of insulin resulting in the release of glucagon which is converted into blood glucose. However, their excessive production in the blood (which then also affects the urinary level) can be a symptom of pheochromocytoma, neuroblastoma and, occasionally, of other neuroectodermal tumors.

Serotonin is a neurotransmitter produced at the gastrointestinal level, mainly involved in the sleep/wake cycle, hunger/satiety, intestinal motility, mood, memory and libido. It is also considered the molecule that regulates good mood and for this reason it is also known as the "happiness hormone". A lack of serotonin leads to fibromyalgia, a disease characterized by pain and perennial muscle tension, at the origin of stiffness and difficulty in movements. An excess of serotonin instead leads to serotonin syndrome, characterized by headache, agitation, confusion, tremors, muscle twitching, chills, tachycardia, sweating, nausea and diarrhea.



HPLC-MS/MS system conditions

Ionization: ESI positive mode

MS/MS: specific MRM

Injection volume: 5 µL (variable according to instrumental sensitivity)

Running time: 3.2 min

Column heater: 45°C

Sample preparation

- Prepare a mix with 20 µL of Internal Standard Mix + 400 µL of Complexing Reagent sufficient for the number of samples to be analyzed
- Add 200 µL of fresh urine in a vial (if patient sample, stored in 0.1% HCl)
- Add 420 µL of Mix solution obtained in previous step of the procedure and check the pH through the color of the solution obtained. If color is yellow, add th pH Correcting Reagent at 10 µL aliquots until the color turns green. Vortex for 30 sec
- Condition the SPE column with 1 mL of SPE Activating Reagent followed by 1 mL of SPE Conditioning Reagent
- Load all the sample onto SPE column and allow it to elute without applying vacuum
- Add 1 mL of SPE Washing Reagent and apply full vacuum for 30 sec dehydrating the SPE Column
- Elute the analytes with 600 µL of SPE Eluting Reagent, If necessary, apply vacuum
- Transfer 200 µL of eluate to an autosampler vial and inject 5 and analyze with HPLC-MS/MS technique

Performance

For detailed performance, please have a look at IFU.

Ordering guide

EUM17100	FloMass® Cathecolamines, free Metanephrine and Serotonin in Urine	100 assays
EUM17041	7-Levels Calibrators, lyophil.	2 x 7 x 1.0 mL
EUM17051	2-Levels Controls, lyophil.	2 x 2 x 2.0 mL
EUM00C17	Chromatographic Column	1 pc
EUM00A14	Precolumn	4 pcs

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