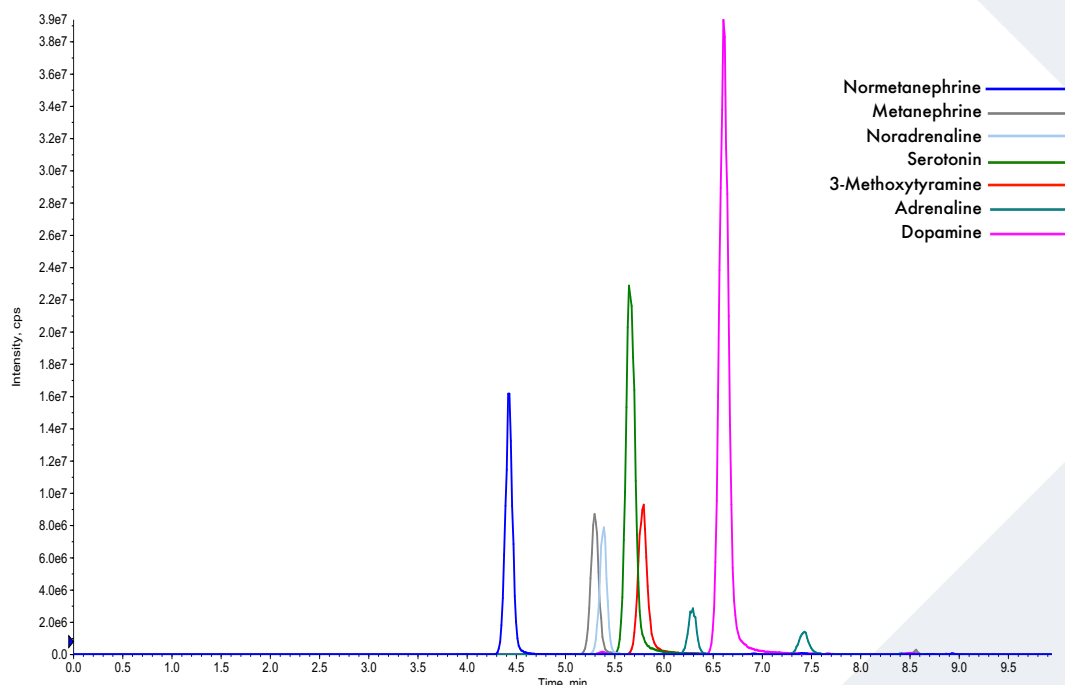


## FLOMASS<sup>®</sup> CATHECOLAMINES, FREE/TOTAL METANEPHRINES AND SEROTONIN IN URINE ONLINE-SPE

Catecholamines are neurotransmitters produced by the adrenal gland. They play a role in physiological changes including an increased heart frequency and blood pressure. The release of these molecules involves bronchodilation, tachypnea and insulin reduction with the consequent release of glucagon which is converted into blood glucose. However, their excessive production (which then also affects the urinary level) can be a symptom of pheochromocytoma, neuroblastoma and, occasionally, of other neuroectodermal tumors.

Serotonin is a gastrointestinal neurotransmitter involved in the sleep/wake cycle, hunger/satiety, intestinal motility, mood, memory and libido. Serotonin deficiency leads to fibromyalgia, a pathology characterized by pain and muscle tension, at the origin of rigidity and difficulty of movements; an excess of serotonin instead leads to serotonergic syndrome, characterized by headache, agitation, confusion, tremors, muscle contractions, chills, tachycardia, sweating, nausea and diarrhea.



## HPLC-MS/MS system conditions

**Ionization:** ESI positive mode

**MS/MS:** specific MRM

**Injection volume:** 1-25 µL (variable according to instrumental sensitivity)

**Running time:** 310 min

**Column heater:** 45°C

## Sample preparation

For Total Metanephrines measurement, you must follow hydrolysis sample preparation (see IFU)

- Prepare a mix with 2 µL of Internal Standard Mix + 73 µL of Dilution Solution sufficient for the number of samples to be analyzed
- Add 25 µL of fresh urine in a vial (if patient sample, stored in 0.1% HCl) + 75 µL of Mix solution obtained in previous step and vortex 5 sec
- Add 250 µL of Buffer Solution + 50 µL of Reagent Solution and put in orbital shaker for 15 min at room temperature
- Add 150 µL of Stabilizing Solution and centrifuge at 12000 rpm for 10 min  
Transfer the supernatant to an autosampler vial and inject 1-25 µL in HPLC-MS/MS

## Performance

ANALYTE	LINEARITY (ng/mL)	LLOD (ng/mL)	LLOQ (ng/mL)	CV% INTRA	CV% INTER
Adrenaline	1.1 - 2000	0.3	1.1	2.7 - 4.0	3.9 - 4.4
Noradrenaline	0.5 - 2000	0.2	0.5	2.5 - 3.8	4.6 - 5.1
Dopamin	3.8 - 4320	1.2	3.8	1.4 - 3.2	3.5 - 4.0
Metanephrine	2.6 - 3000	0.8	2.6	2.2 - 6.5	4.2 - 6.7
Normetanephrine	1.5 - 4800	0.5	1.5	1.9 - 3.9	4.5 - 8.6
3-Methoxytyramine	2.2 - 2000	0.7	2.2	1.6 - 4.3	4.2 - 6.3
Serotonin	9.8 - 6480	2.9	9.8	2.2 - 4.2	4.5 - 5.8

## Ordering guide

EUM12100	FloMass® Cathecolamines, Free/Total Metanephrine and Serotonin in Urine Online-SPE	100 assays
EUM17041	7-Levels Calibrators, lyophil.	2 x 7 x 1.0 mL
EUM17051	Biogenic Amines Control	2 x 2 x 2.0 mL
EUM00C22	Chromatographic Column	1 pc
EUM00S02	Loading Chromatographic Column	1 pc
EUM00P01	Green Peek	1 pc

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