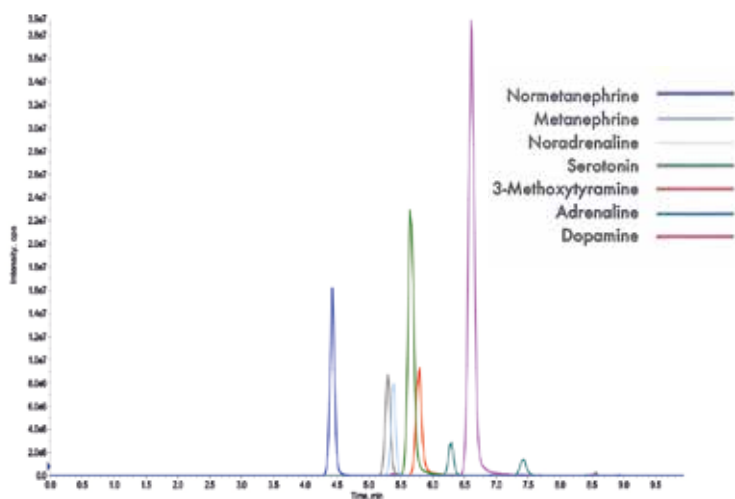


## SHORT METHOD DESCRIPTION

# FloMass® Urinary Catecholamines, Free/Total Metanephrines and Serotonin (online SPE)

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

## Performance

Analyte	Linearity (ng/mL)	LLOD (ng/mL)	LLOQ (ng/mL)	CV% Intra	CV% Inter
Adrenaline	1.1 - 2000	0.3	1.1	2.4 - 4.0	3.9 - 4.4
Noradrenaline	0.5 - 2000	0.2	0.5	2.5 - 3.8	4.6 - 5.1
Dopamine	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
Serotonine	9.8 - 6480	2.9	9.8	2.2 - 4.2	4.5 - 5.8

## ORDERING GUIDE

Order No.	Description	Quantity
<b>EUM22100</b>	<b>FloMass® Cathecolamines, Free/Total Metanephrines and Serotonin in Urine SPE on-line</b> LC-MS/MS detection	<b>100 assays</b>
	<b>Contents</b>	
	Mobile Phase A	1 x EUM22011
	Mobile Phase B	1 x EUM22012
	Mobile Phase C - SPE Loading	1 x EUM22013
	Diluting Reagent	1 x EUM22021
	Buffer Solution	1 x EUM22022
	Reagent Solution	1 x EUM22023
	Stabilizing Solution	1 x EUM22024
	Hydrolysis Solution	1 x EUM22025
	Neutralizing Solution	1 x EUM22026
	Internal Standard	1 x EUM22031
	<b>Separately available components</b>	
EUM22011	Mobile Phase A	500 ml
EUM22012	Mobile Phase B	300 ml
EUM22013	Mobile Phase C - SPE Loading	1000 ml
EUM22021	Diluting Reagent	7.5 ml
EUM22022	Buffer Solution	30 ml
EUM22023	Reagent Solution	6 ml
EUM22024	Stabilizing Solution	20 ml
EUM22025	Hydrolysis Solution	1.1 ml
EUM22026	Neutralizing Solution	2.2 ml
EUM22031	Internal Standard	0.250 ml
	<b>Accessory</b>	
EUM00C22	Analytical Column with test chromatogram	1 pc
EUM00S02	Loading Column	5 pcs
EUM00P01	Green Peek	1 pc
EUM17071	FloTuning Mix A + Mix B Biogenic Amines	2x2 ml
EUM17051	Control Set for Biogenic Amines in Urine, lyoph. (Adrenaline, Noradrenaline, Dopamine, Metanephrine, Normetanephrine, 3-Methoxytyramine, Serotonin, VMA, HVA, 5-HIAA and Creatinine) (2 levels)	2x2x2 ml
EUM17041	Calibrator Set for Cathecolamines, Metanephrines and Serotonin in Urine in urine, lyoph. (7 levels)	2x7x1 ml