Product information

YMC EUROPE GMBH

YMC-Triart PFP
catecholamines
serotonin

Neurotransmitter Separation YMC-Triart PFP

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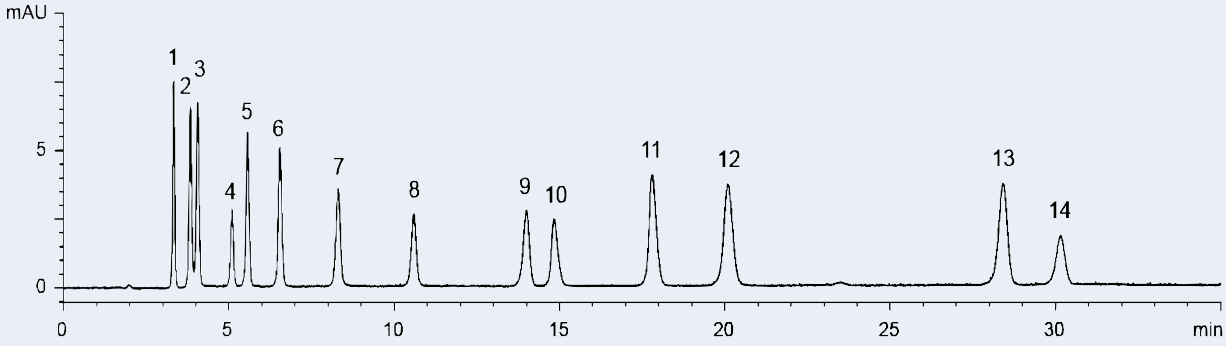
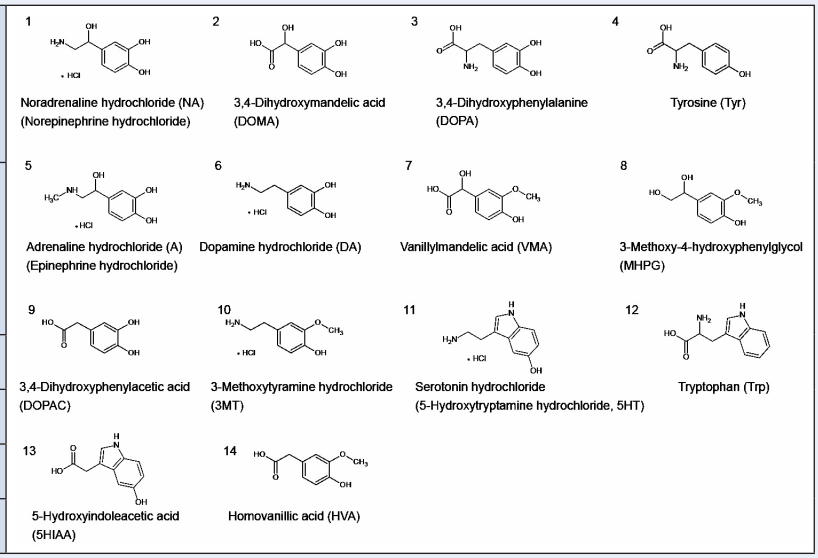
Dopamine, **adrenaline** (epinephrine) and **noradrenaline** (norepinephrine) are members of the catecholamines. Catecholamines are hormones and neurotransmitters of the central nervous system and the autonomic nervous system. They play a role in diagnostics and therapy. For example, an elevated level of **vanillylmandelic acid** (a decomposition product of adrenaline and noradrenaline) can indicate the presence of tumours.

Serotonin (5-hydroxytryptamine) is a biogenic amine, which functions as a tissue hormone and neurotransmitter regulating a variety of physiologic processes. Serotonin influences processes in the circulatory system and the intestinal tract. Serotonin deficit is thought to be a reason for depression. During the decomposition of serotonin, **5-hydroxyindoleacetic acid** is formed. This substance can be used as marker for the serotonin levels.

This is why simultaneous analysis of catecholamines, serotonin and their precursors and metabolites is an indispensable part of medicine and pharmacy. YMC-Triart PFP is capable of separation and quantification of 14 of these substances in <u>one single run</u> in under 31 minutes.



Column	TPF12S03-1503WT **YMC-Triart PFP** 3 µm particle size 12 nm pore size 150 × 3.0 mm ID
Eluent	A - 10 mM formic acid B - methanol with 10 mM formic acid 0-20%B (0-30min), 20%B (30-35min)
Flow rate	0.425 ml/min
Temperature	25°C
Detection	UV at 280 nm
Injection	4 µl (5 µg/ml)



With YMC-Triart PFP, 14 structurally similar, important neurotransmitters can be separated in one single run.