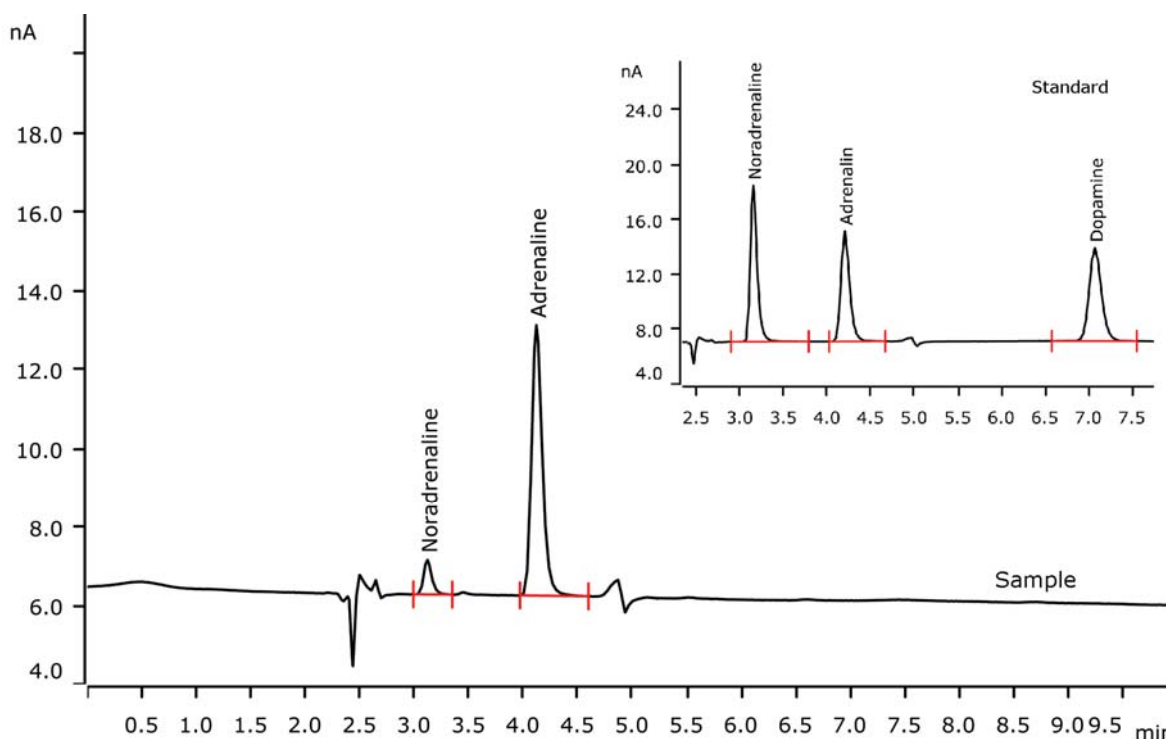


# Catecholamine determination in pharmaceutical products using the amperometric detector



Determination of catecholamines is traditionally performed applying RP separation followed by amperometric detection. The determination of catecholamines in an emergency medication for life-threatening allergic reactions is performed here.

## Results

Compound	Concentration in sample [ $\mu\text{g}/\text{mL}$ ]	Concentration in standard [ $\mu\text{g}/\text{L}$ ]
Noradrenaline	92.8	50.0
Adrenaline	1053.2	50.0
Dopamine	n.d.	50.0

## Sample

Pharmaceutical injection

## Sample preparation

Direct injection after dilution 1 : 25'000

## Columns

Luna C18(2) 5 100 / 250×4.6 00G-4252-EO  
(Phenomenex)

Security Guard Cartridge Kit KJO - 4282  
(Phenomenex)

## Solutions

Eluent 37.8 mmol/L ammonium sulfate  
3 mL/L acetic acid

## Parameters

Flow rate	1.0 mL/min
Injection volume	20 µL
Recording time	10 min
Column temperature	35 °C

## PAD Parameters

Cell	Wall-Jet cell
Working electrode	Glassy Carbon
Reference electrode	Ag/AgCl
Spacer	50 µm
Measuring potential	0.8 V
Measuring range	Auto
Temperature	32 °C
Mode	DC
Measuring mode	Current

## Analysis

Amperometric detection

## Instrumentation

930 Compact IC Flex Oven/Deg	2.930.2160
IC Amperometric Detector	2.850.9110
858 Professional Sample Processor	2.858.0020
IC equipment Wall-Jet cell: anion analysis (GC/ Ag/AgCl)	6.5337.030

