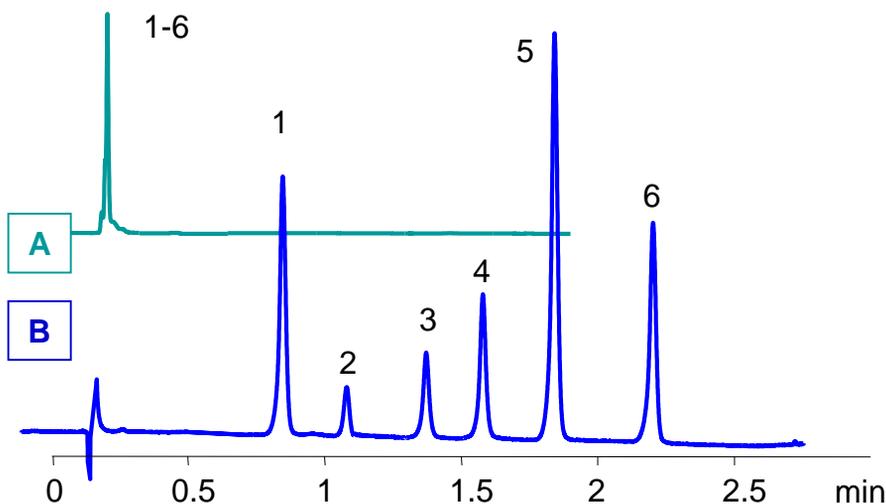


## Fast Separation of Neurotransmitters on Core-Shell Mixed-Mode Column

<b>Column:</b>	<b>Coresep 100</b>
<b>Column size:</b>	3.2 x 50 mm, 2.7 $\mu$ m, 90A
<b>Mobile phase:</b>	MeCN gradient 5% to 10% in 4 min, AmFm pH 2.9 gradient 5 mM to 25 mM in 4 min
<b>Flow rate:</b>	1 ml/min
<b>Detection:</b>	270 nm

1. DOPA
2. Tyrosine
3. Phenylalanine
4. Norepinephrine
5. Epinephrine
6. Dopamine



Column A: C18 Core-shell

Column B: Coresep 100

### Application Notes

Catecholamines (neurotransmitters) are derivatives of the amino acid tyrosine. Fast baseline separation of DOPA, tyrosine, phenylalanine, norepinephrine, epinephrine, and dopamine was achieved on a mixed-mode reversed-phase core-shell Coresep 100 column. All compounds are retained and separated by combination of reversed-phase and cation-exchange mechanisms. Peak order and retention time can be changed by switching from TFA to ammonium formate in the mobile phase, by adjusting mobile-phase composition, and by changing pH. The method is fully compatible with mass spectroscopy and can be used for fast analysis of neurotransmitters in biofluids, as well as a replacement for analysis of neurotransmitters by UPLC or HPLC with ion-pairing reagents.