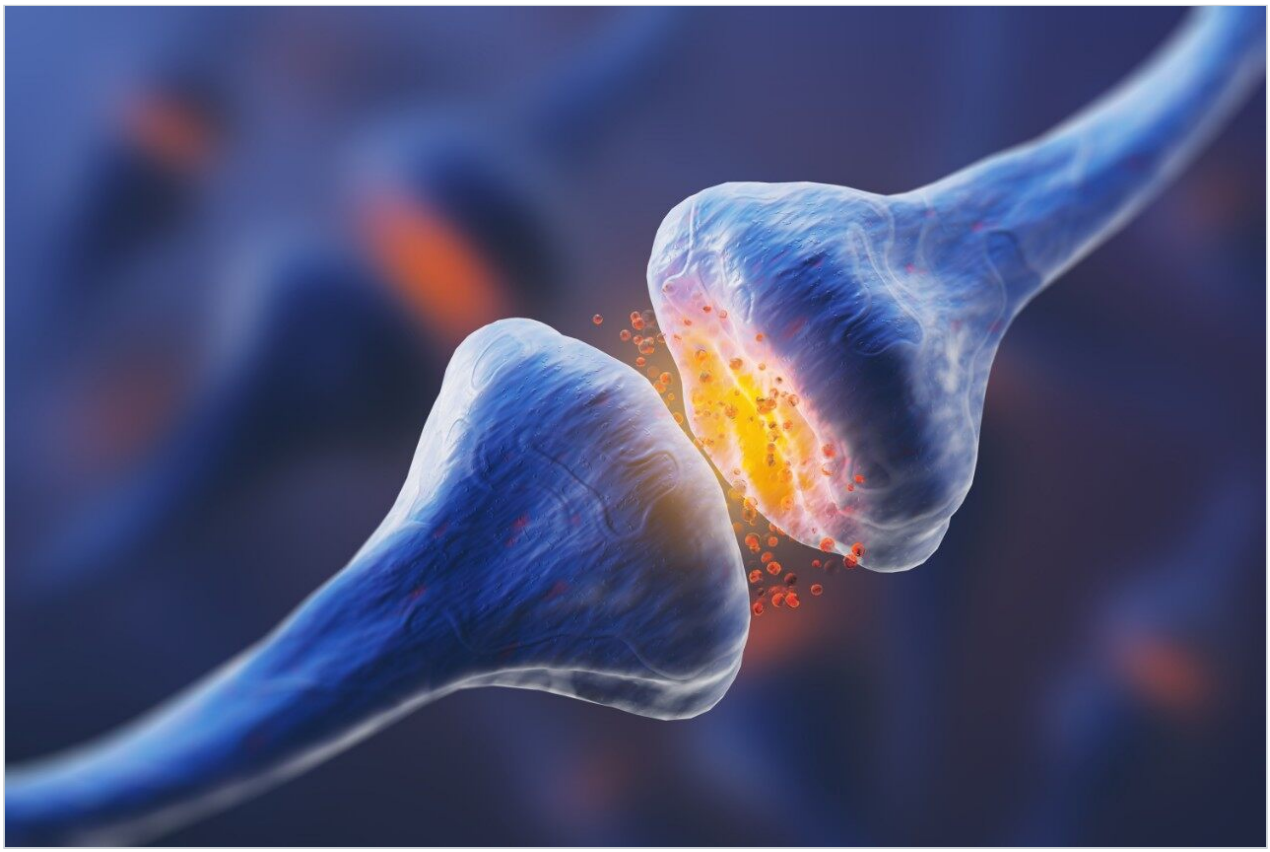
Waters™

アプリケーションノート

LC-MS Isocratic Separation of Neurotransmitters on Atlantis HILIC Silica

Waters Corporation



This is an Application Brief and does not contain a detailed Experimental section.

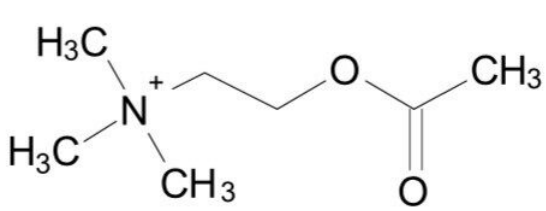
Abstract

This application brief demonstrates the LC-MS isocratic separation of neurotransmitters on Atlantis HILIC Silica Columns.

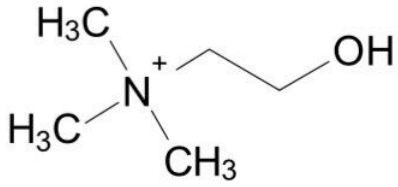
Introduction

The compounds used in this study are:

1. Acetylcholine
2. Choline



Acetylcholine (Ach)



Choline (Ch)

Experimental

LC Conditions

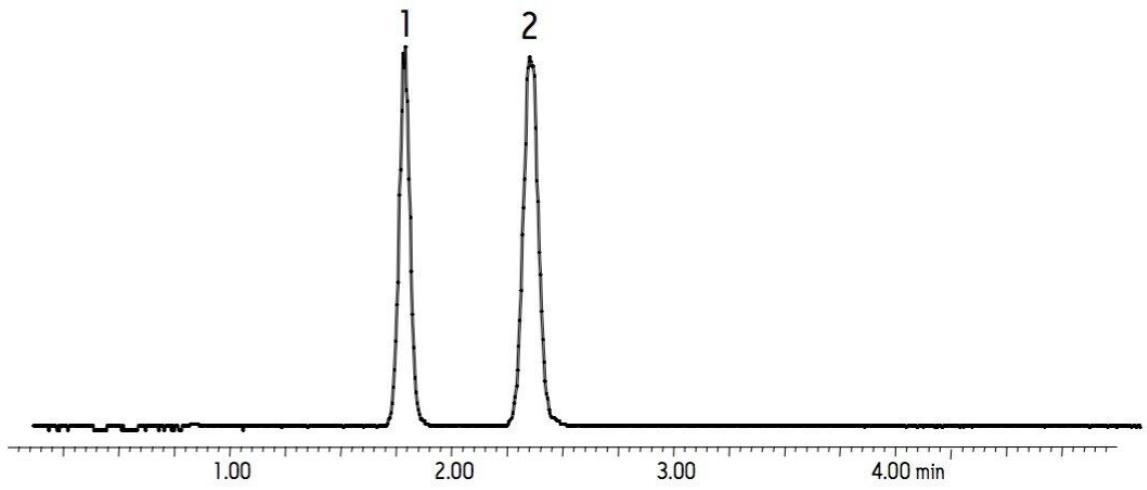
Column:	Atlantis HILIC Silica, 2.1 x 50 mm, 3 µm
Part Number:	186002011
Mobile Phase A:	10 mM NH_4COOH with 0.125% HCOOH in H_2O
Mobile Phase B:	10 mM NH_4COOH with 0.125% HCOOH in 90:5:5 ACN:MeOH:H_2O
Isocratic Mobile Phase Composition:	10% A; 90% B
Flow Rate:	0.5 mL/min

Injection Volume:	10.0 µL (full loop)
Sample Concentration:	5 ng/mL each
Sample Diluent:	75:25 ACN:MeOH with 0.2% HCOOH
Column Temp.:	30 °C
Weak and Strong Needle Wash:	95;5 ACN:H_2O
Detection:	MS
Sampling Rate:	5 points/sec
Instrument:	Waters ACQUITY UPLC with TQD

MS Conditions

Ionization Mode:	ES+
Capillary:	0.5 kV
Cone:	25 V (acetylcholine), 40 V (choline)
Source Temperature:	120 °C
Desolvation Temperature:	350 °C
Desolvation Gas Flow:	800 L/Hr
SIR:	146.1 *m/z* (acetylcholine); 104.0 m/z (choline)
Dwell Time:	150 msec
ISD:	10 msec
ICD:	10 msec

Results and Discussion



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