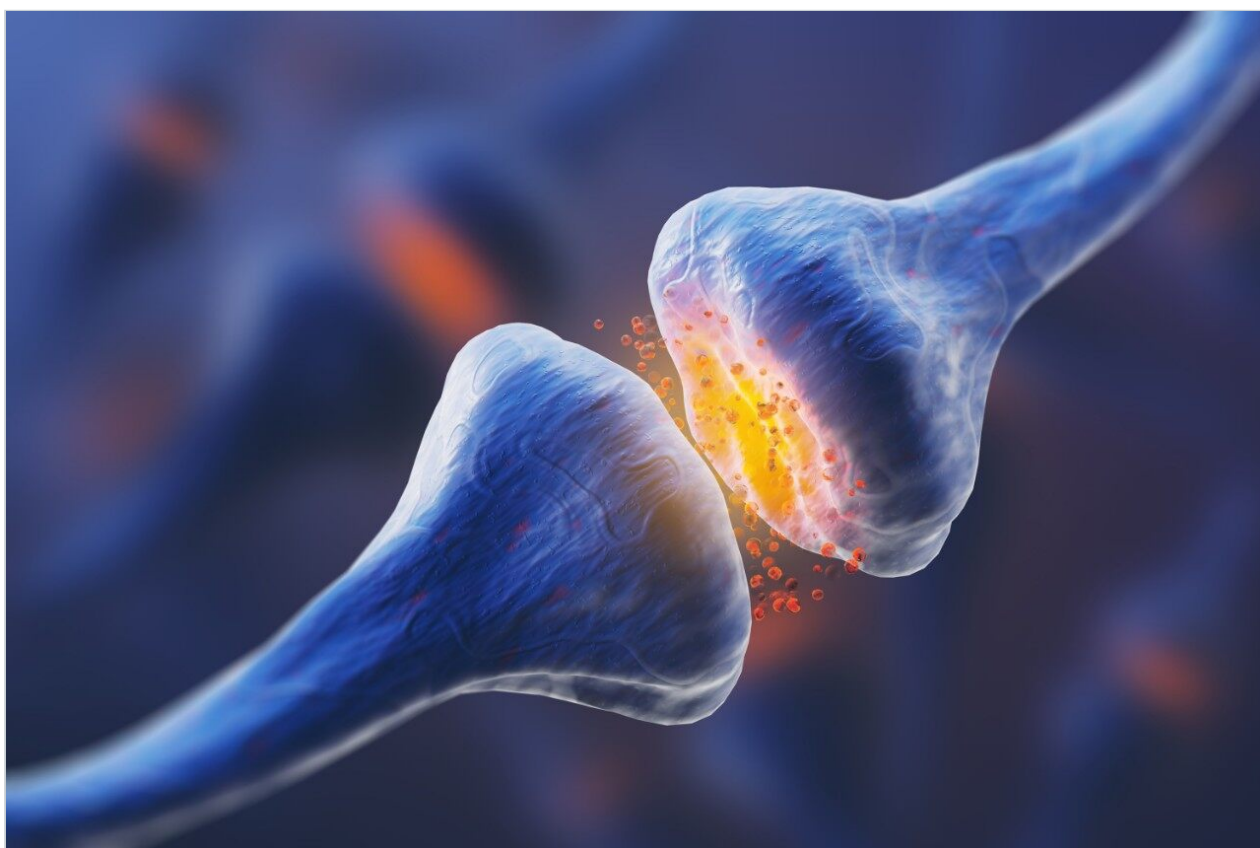


# LC-MS Isocratic Separation of Neurotransmitters on XBridge HILIC

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Waters Corporation



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

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## Abstract

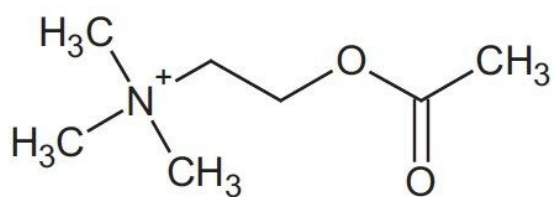
This application brief demonstrates the LC-MS isocratic separation of neurotransmitters on XBridge HILIC Column.

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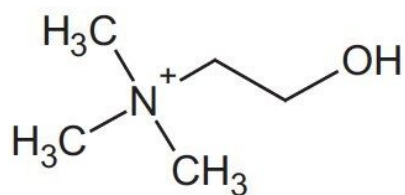
## Introduction

The compounds used in this study are:

1. Acetylcholine (Ach)
2. Choline (Ch)



Acetylcholine (Ach)



Choline (Ch)

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## Experimental

### LC Conditions

Column:	XBridge HILIC, 2.1 x 50 mm, 3.5 $\mu$ m
Part number:	186004432
Mobile phase A:	10 mM NH <sub>4</sub> COOH with 0.125% HCOOH in H <sub>2</sub> O
Mobile phase B:	10 mM NH <sub>4</sub> COOH with 0.125% HCOOH in 90:5:5 ACN:MeOH:H <sub>2</sub> O
Isocratic mobile phase composition:	10% A; 90% B
Flow rate:	0.5 mL/min

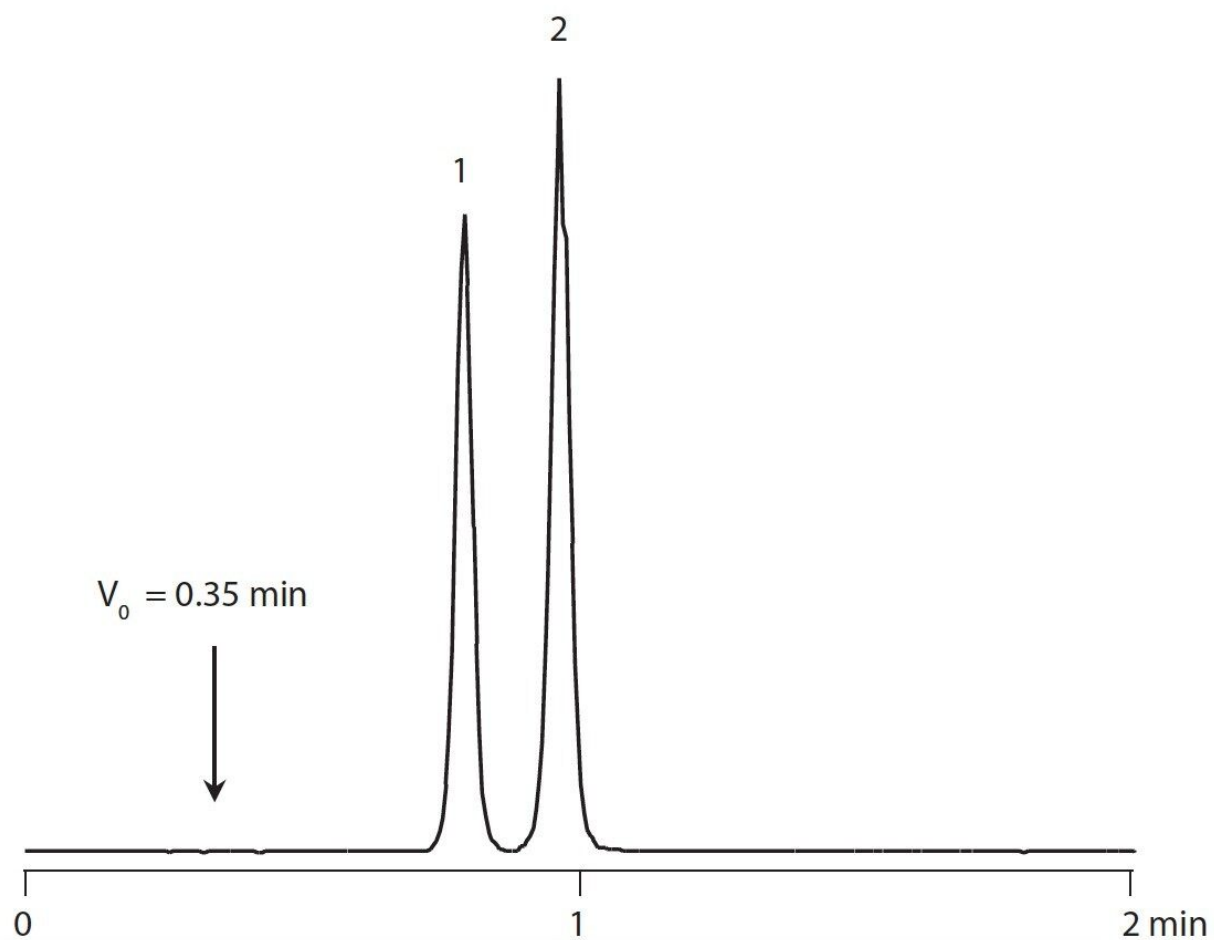
Injection volume:	10.0 $\mu$ L (full loop)
Sample diluent:	75:25 ACN:MeOH with 0.2% HCOOH
Sample concentration:	5 ng/mL each
Column temperature:	30 $^{\circ}$ C
Weak and strong needle wash:	95:5 ACN:H <sub>2</sub> O
Detection:	MS
Sampling rate:	5 points/sec
Instrument:	Waters ACQUITY UPLC with TQD

## MS Conditions

Ionization mode:	ES+
Capillary:	0.5 kV
Cone:	40 V (choline), 25 V (acetylcholine)
Source temperature:	120 $^{\circ}$ C
Desolvation temperature:	350 $^{\circ}$ C
Desolvation gas flow:	800 L/Hr
SIR:	146.1 <i>m/z</i> (acetylcholine); 104.0 <i>m/z</i> (choline)
Dwell time:	150 msec
ISD:	10 msec
ICD:	10 msec

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## Results and Discussion



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## Featured Products

ACQUITY UPLC System <<https://www.waters.com/514207>>

WA64076, August 2009

