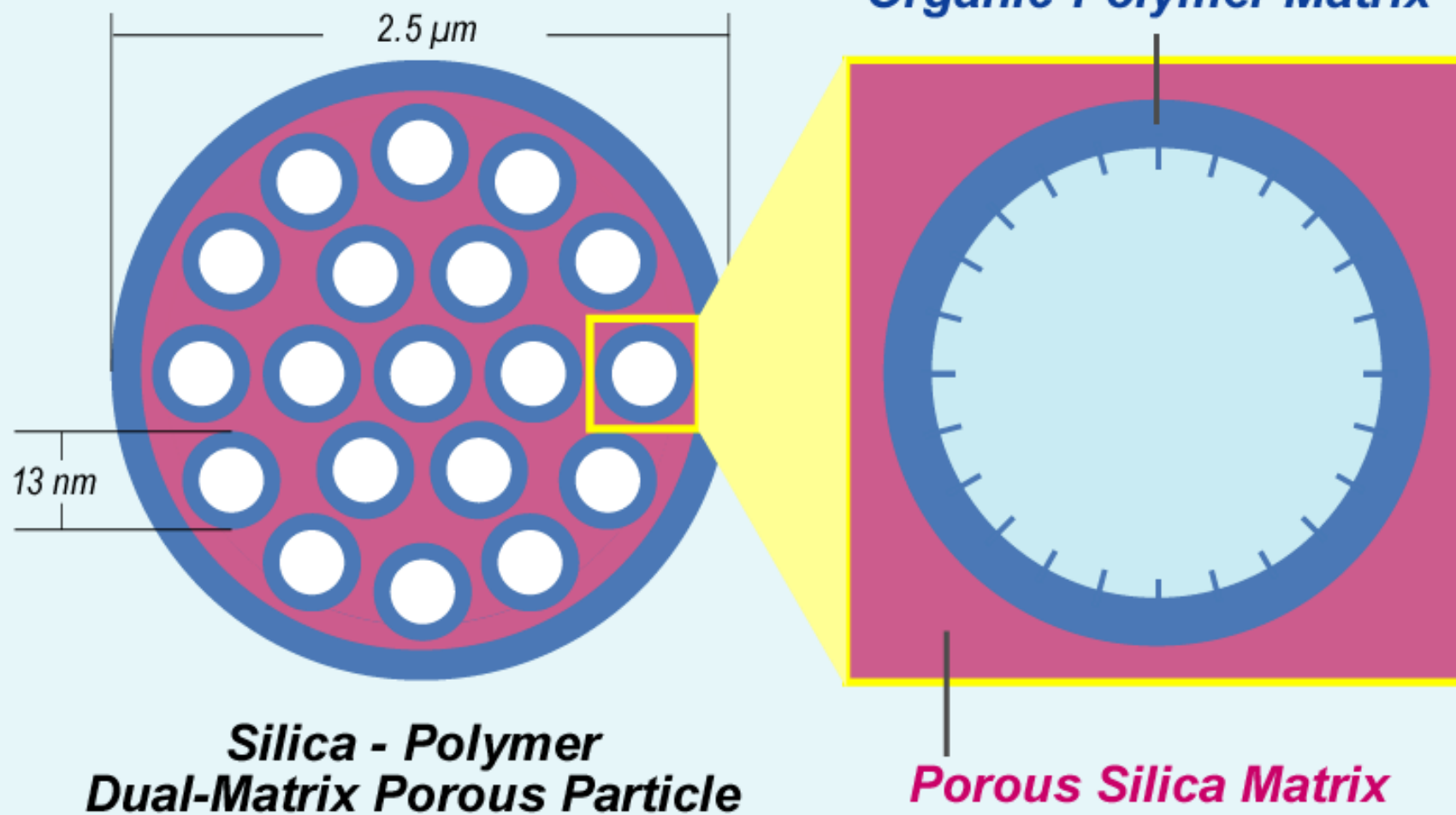




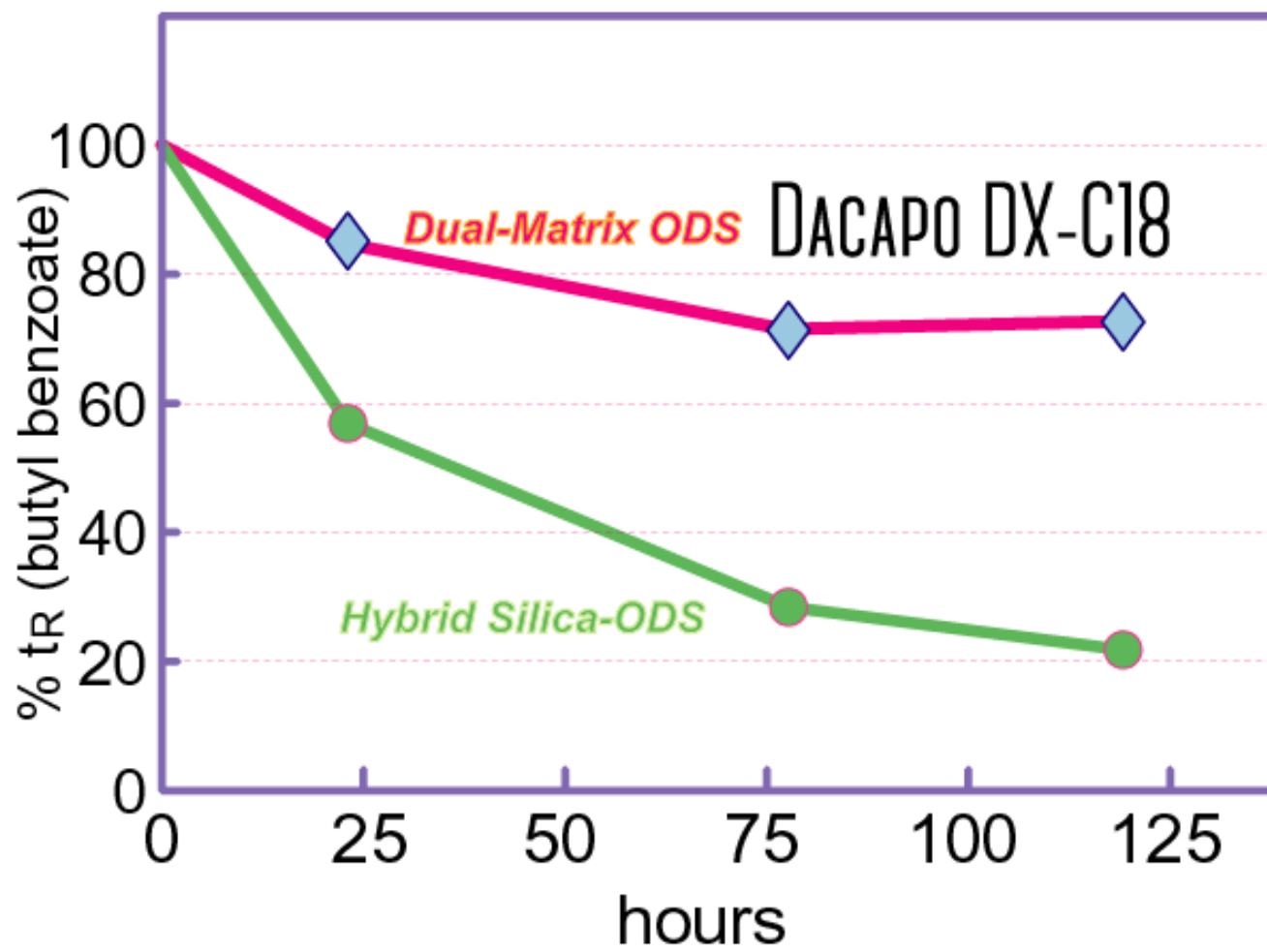
Dual-Matrix Structure

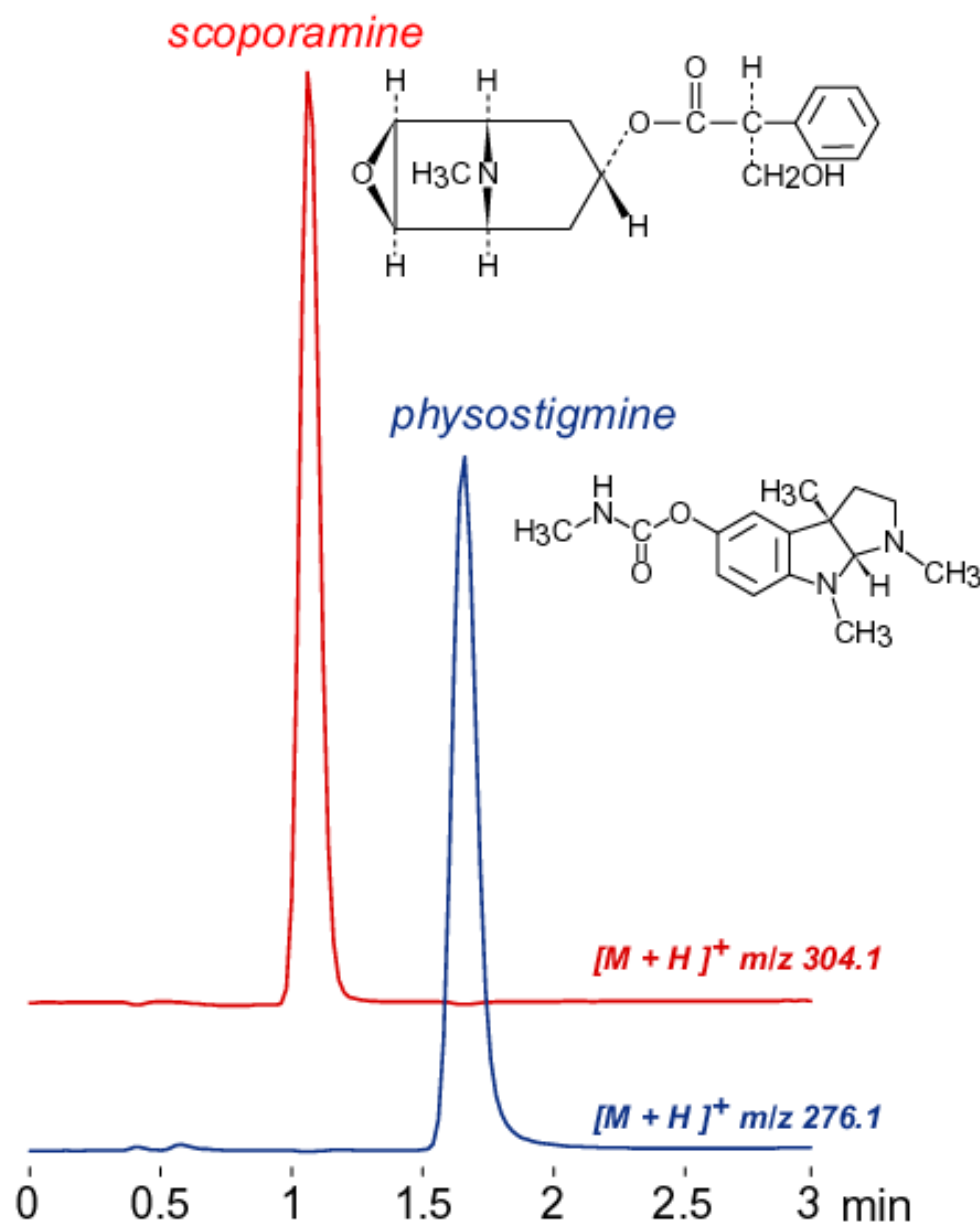
DACAPO DX-C18





Alkali stability (0.1N NaOH)





10mM NH₄OH

DACAPO DX-C18, 50 x 2 mm
A: 10mM NH₄OH
B: acetonitrile
30-100 %B (0-2.5min)
100 %B (2.5-3.0mn)
0.2 mL/min, 37 °C
1 μ L (5 μ g/mL, 50%ACN)
Single Quad. MS (ESI, Positive)



**Amyloid beta-peptide
(Human, 1-40)**

$[M - 4H]^{4-}$ m/z 1081.4

**Insulin
(Bovine pancreas)**

$[M - 4H]^{4-}$ m/z 1432.0

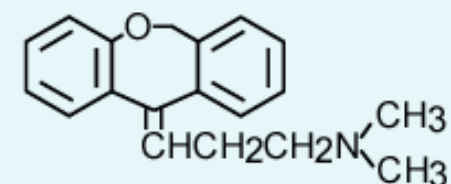
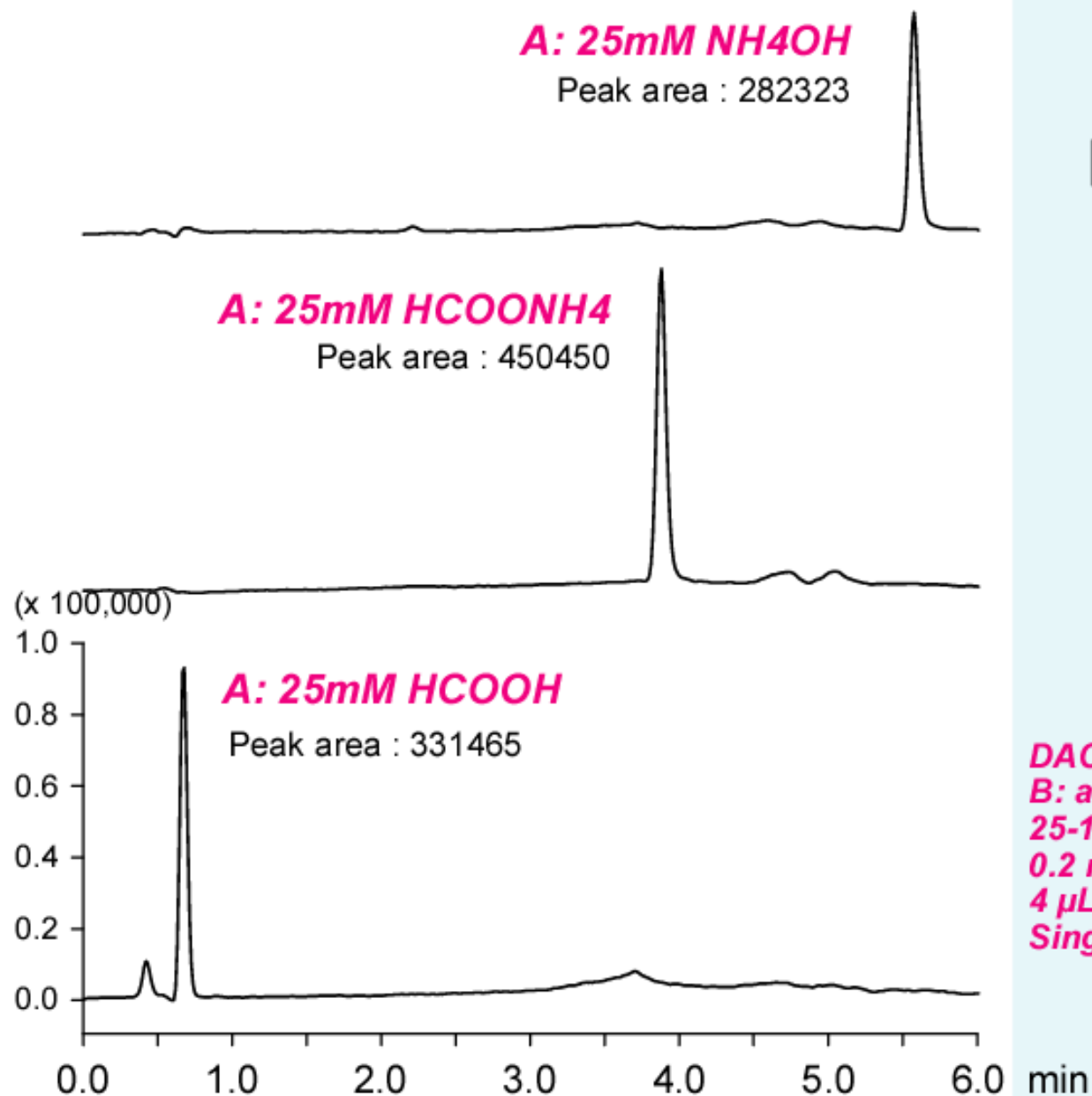
0 1 2 3 4 5 min

25mM NH₄OH

DACAPO DX-C18, 50 x 2 mm
A: 25mM NH₄OH
B: acetonitrile
0-100 %B (0-5min)
0.2 mL/min (5MPa), 37 °C
1 µL (10 µg/mL)
Single Quad. MS (ESI, Negative)



Mobile phase pH dependency (Basic Compound)



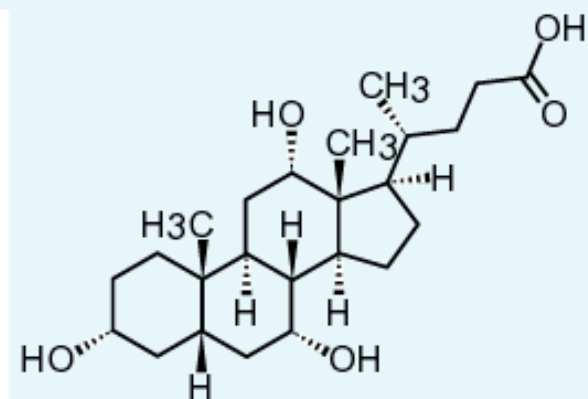
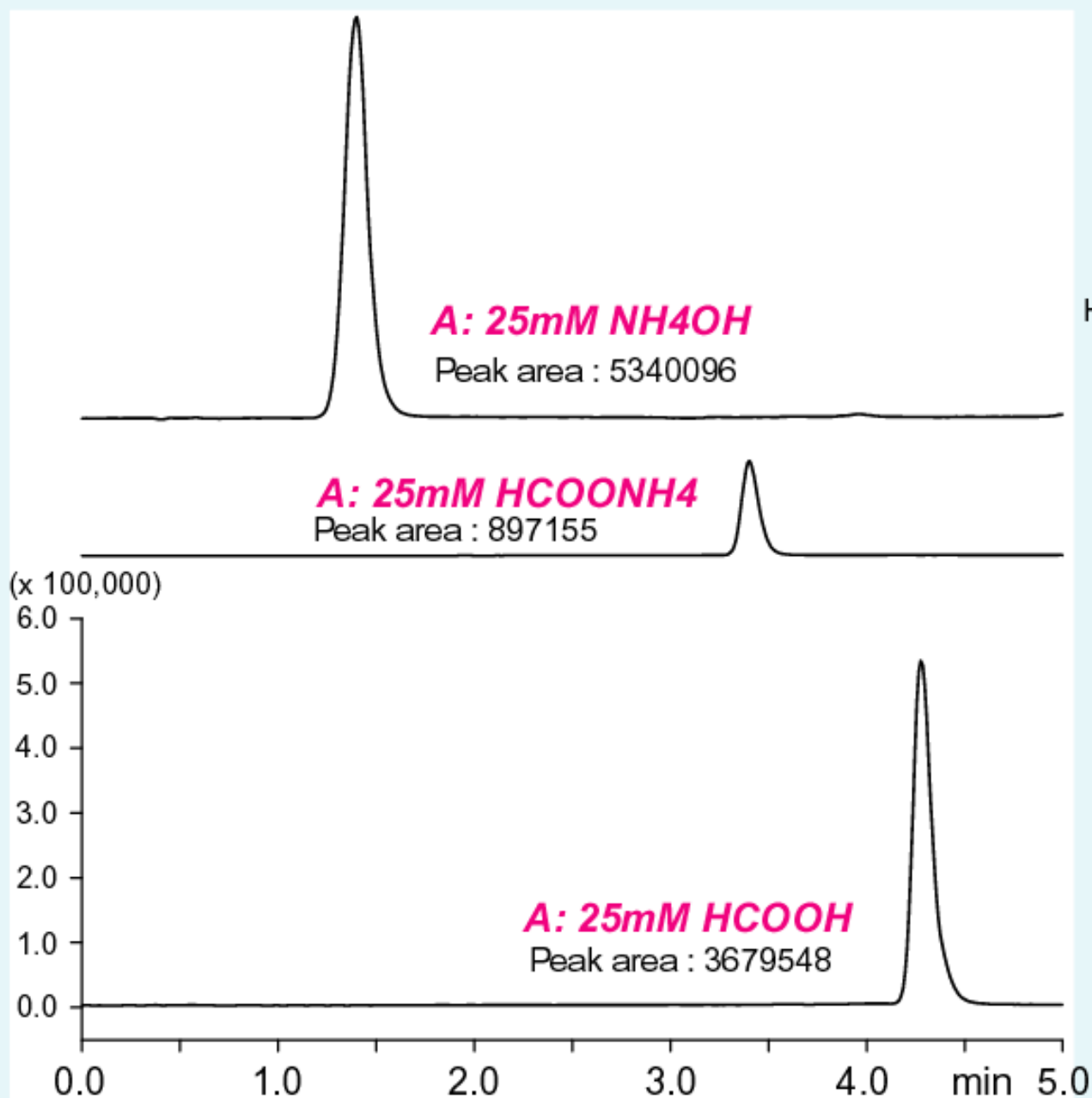
doxepine

$[M + H]^+$ m/z 295.2

DACAPO DX-C18, 50 x 2 mm
B: acetonitrile
25-100 %B (0-6min)
0.2 mL/min, 37 °C
4 μ L (doxepine 100ng/mL, eluent)
Single Quad. MS (ESI)



Mobile phase pH dependency (Acidic Compound)



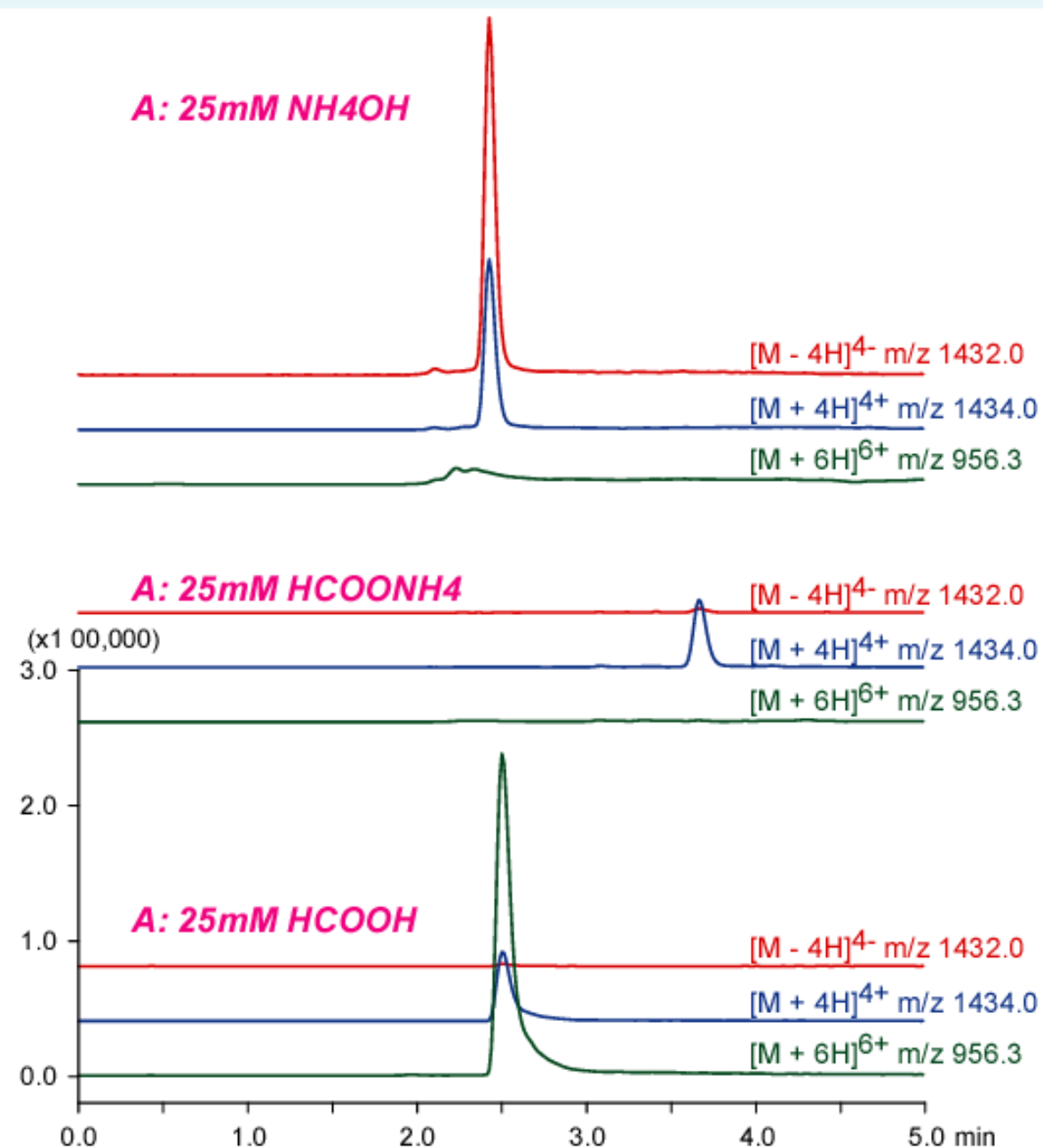
cholic acid

[M - H]⁻ m/z 407.3

DACAPO DX-C18, 50 x 2 mm
B: acetonitrile
15-100 %B (0-5min)
0.2 mL/min, 37 °C
1 µL (10 µg/mL, eluent)
Single Quad. MS (ESI)



Mobile phase pH dependency (Insulin)

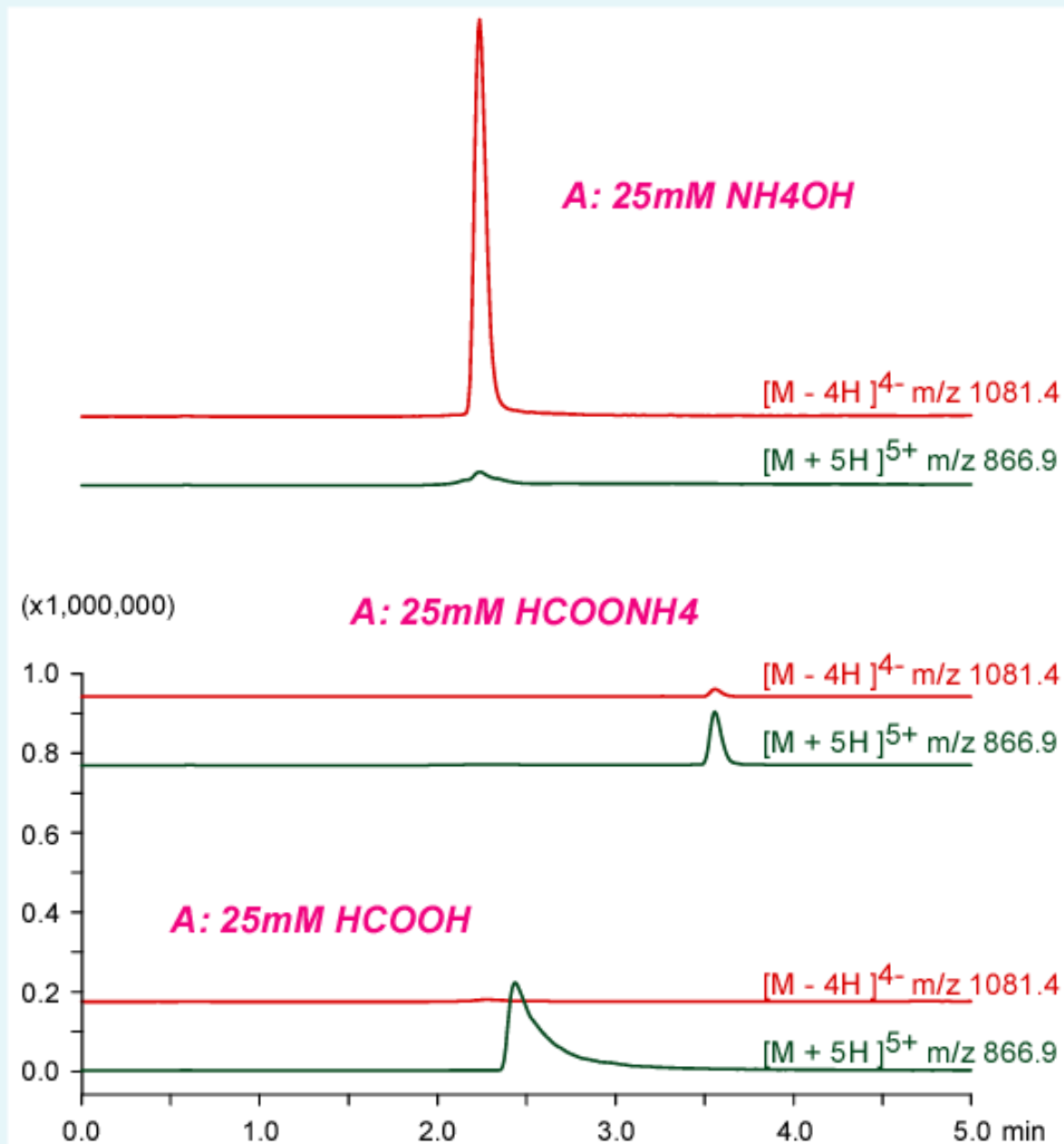


**Insulin
from bovine pancreas**

DACAPO DX-C18, 50 x 2 mm
B: acetonitrile
0-100 %B (0-5min)
0.2 mL/min (5MPa), 37 °C
1 µL (insulin 10 µg/mL, eluentA)
Single Quad. MS (ESI)



Mobile phase pH dependency (Amyloid beta-peptide)

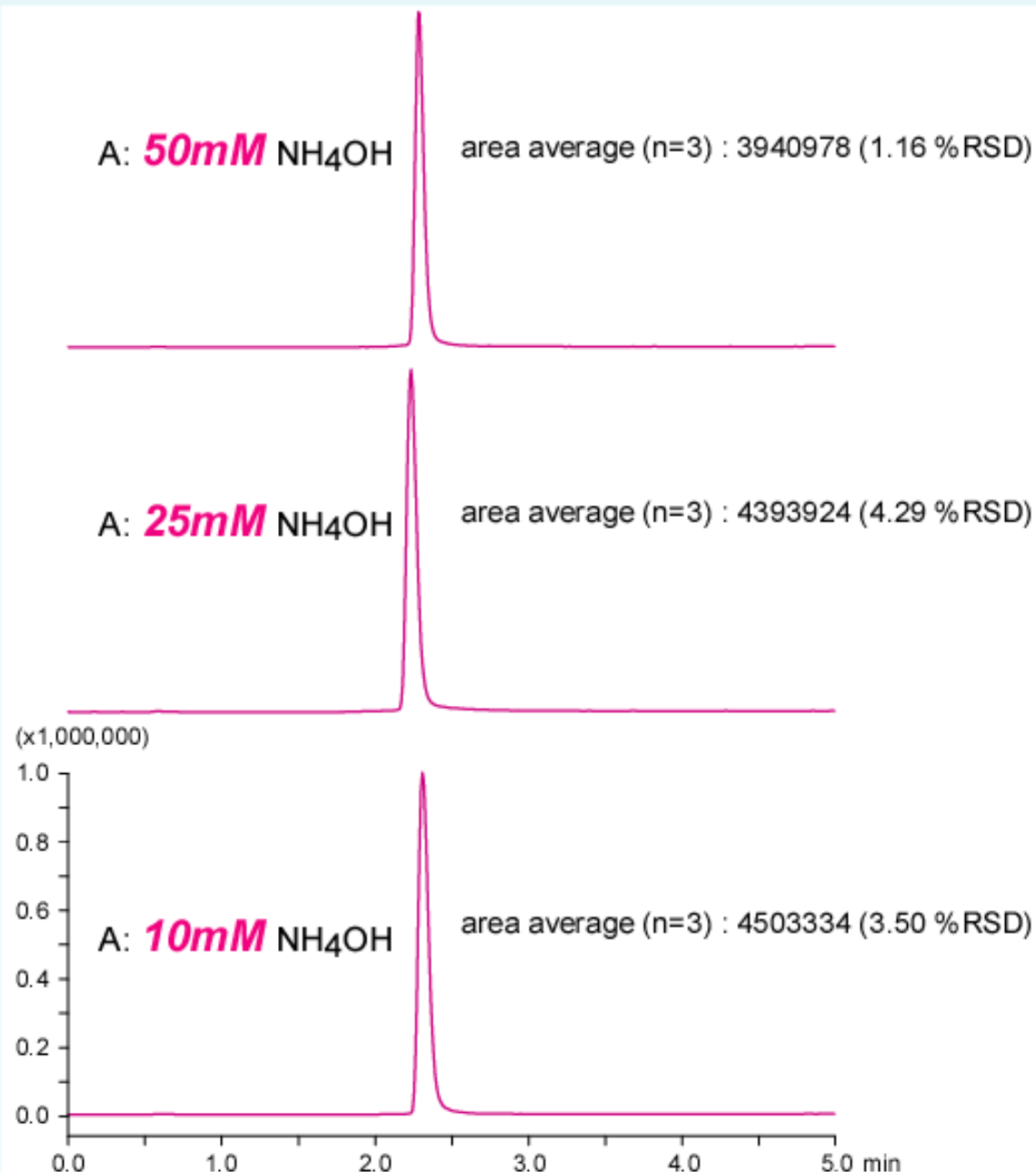


**Amyloid beta-peptide
(Human, 1-40)**

DACAPO DX-C18, 50 x 2 mm
B: acetonitrile
0-100 %B (0-5min)
0.2 mL/min (5MPa), 37 °C
1 µL (amyloid peptide
10 µg/mL, DMSO)
Single Quad. MS (ESI)



Alkali concentration (Amyloid beta-peptide)



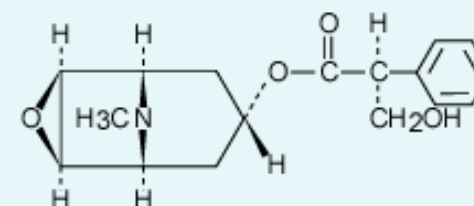
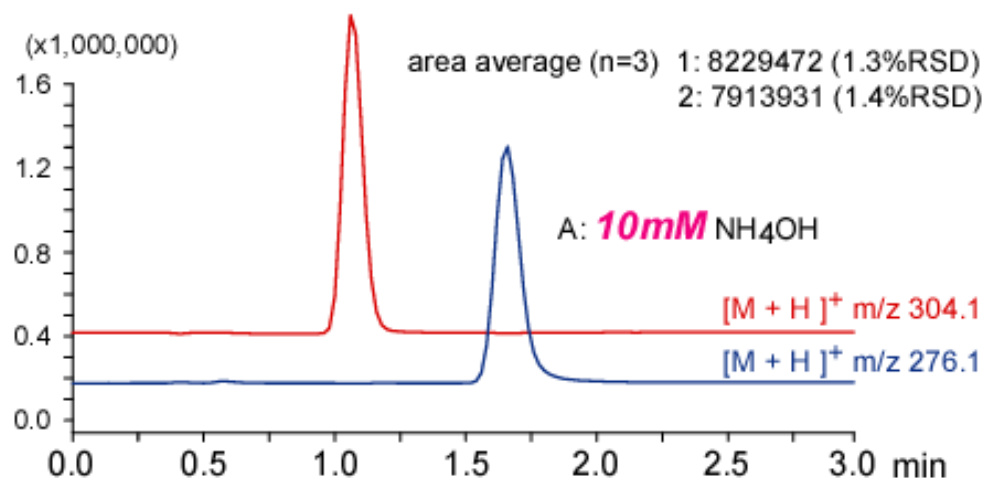
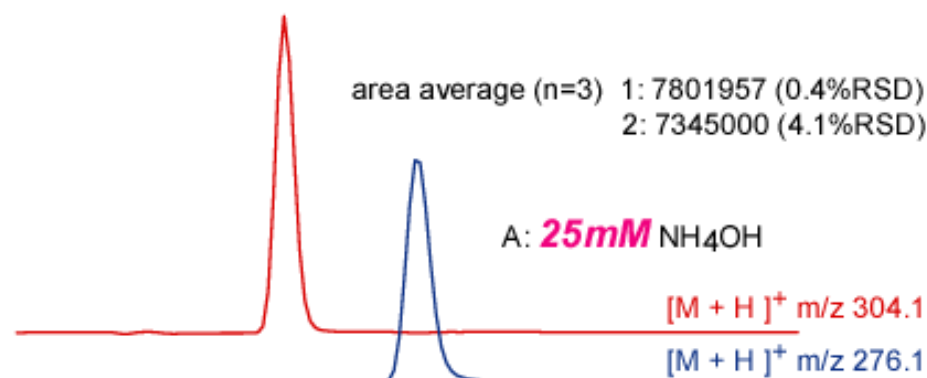
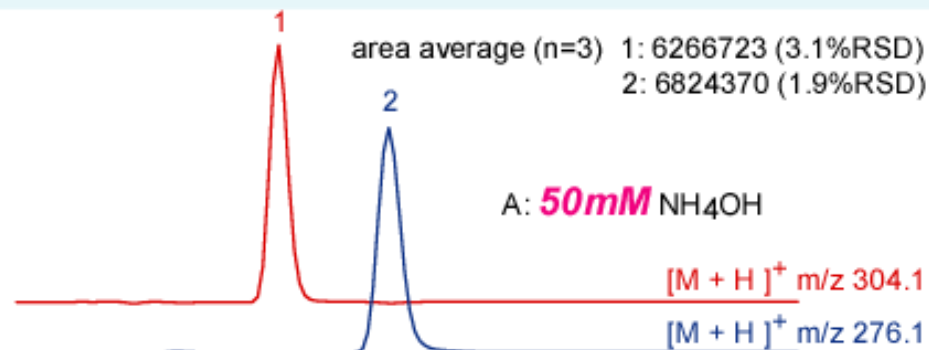
**Amyloid beta-peptide
(Human, 1-40)**

[M - 4H]⁴⁻ m/z 1081.4

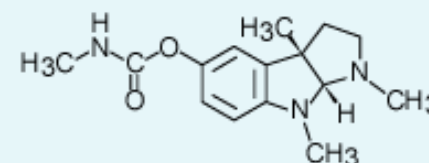
DACAPO DX-C18, 50 x 2 mm
B: acetonitrile
0-100 %B (0-5min)
0.2 mL/min, 37 °C
1 µL (amyloid peptide
10 µg/mL, DMSO)
Single Quad. MS (ESI)



Alkali concentration (Alkaloids)



1. *scoporamine*



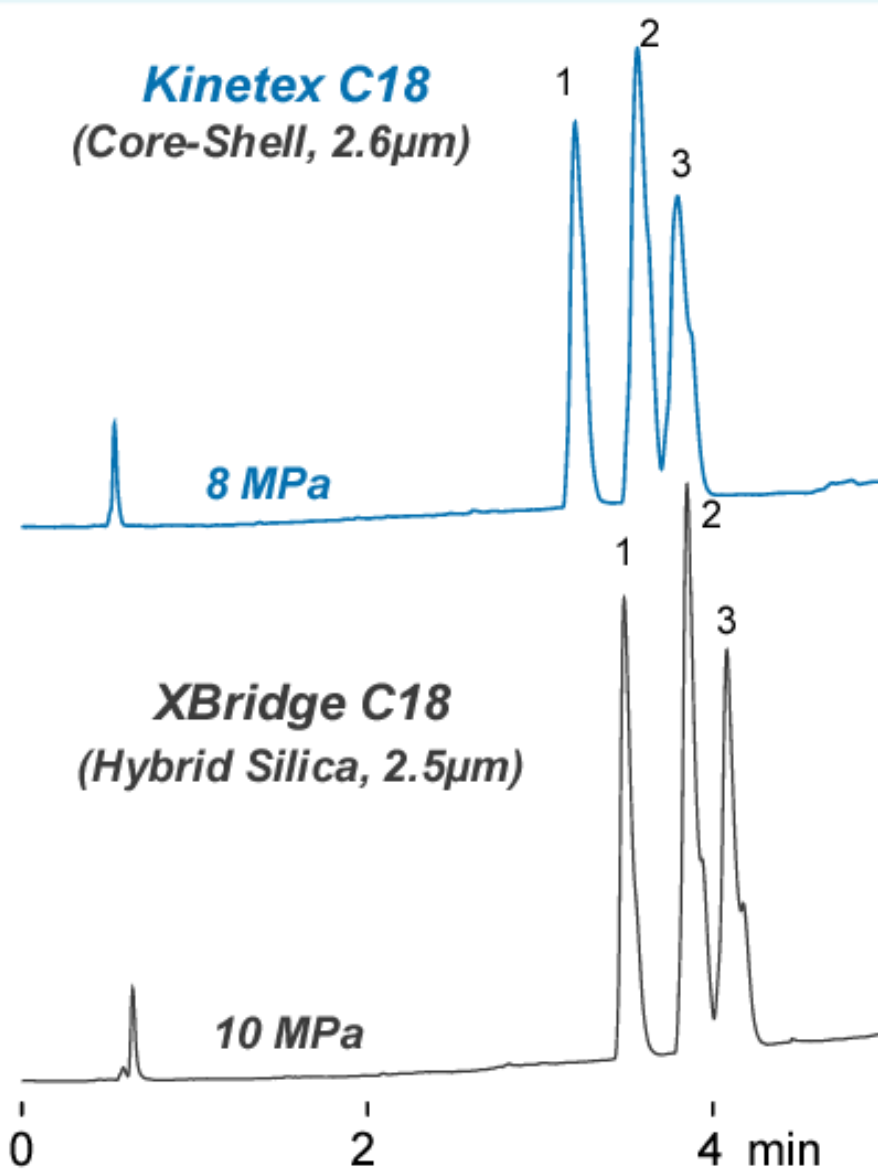
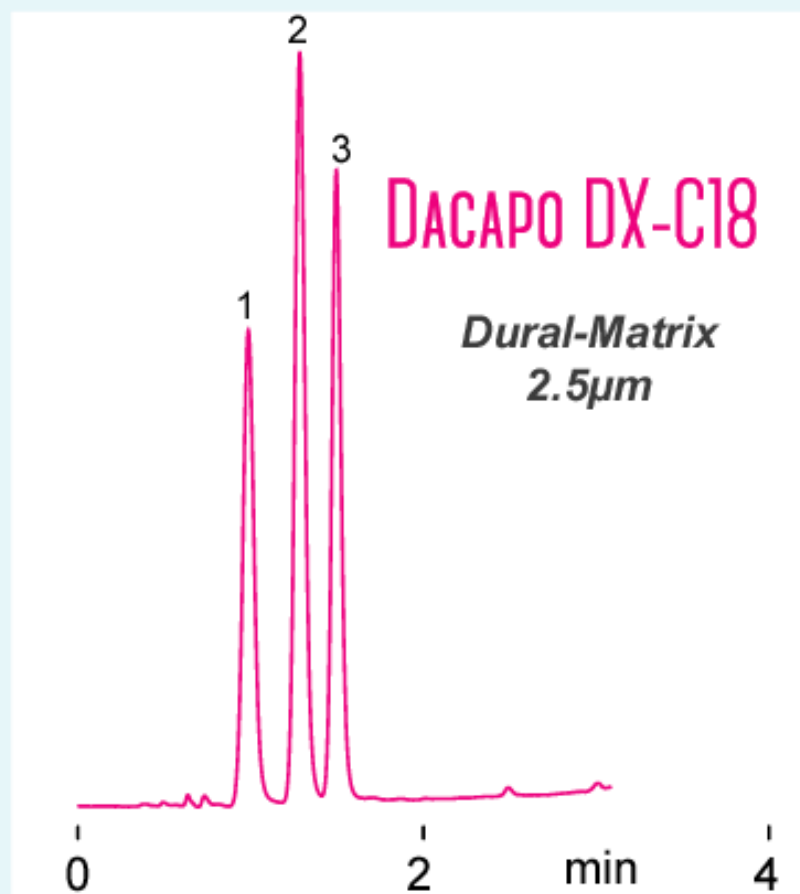
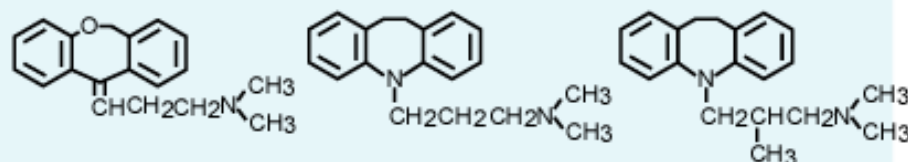
2. *physostigmine*

DACAPO DX-C18, 50 x 2 mm
B: acetonitrile
30-100 %B (0-2.5min)
100 %B (2.5-3.0mn)
0.2 mL/min, 37 °C
1 µL (5 µg/mL, 50%ACN)
Single Quad. MS (ESI)



Basic compounds (Low pH)

DACAPO DX-C18

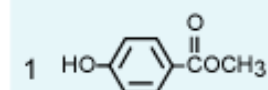
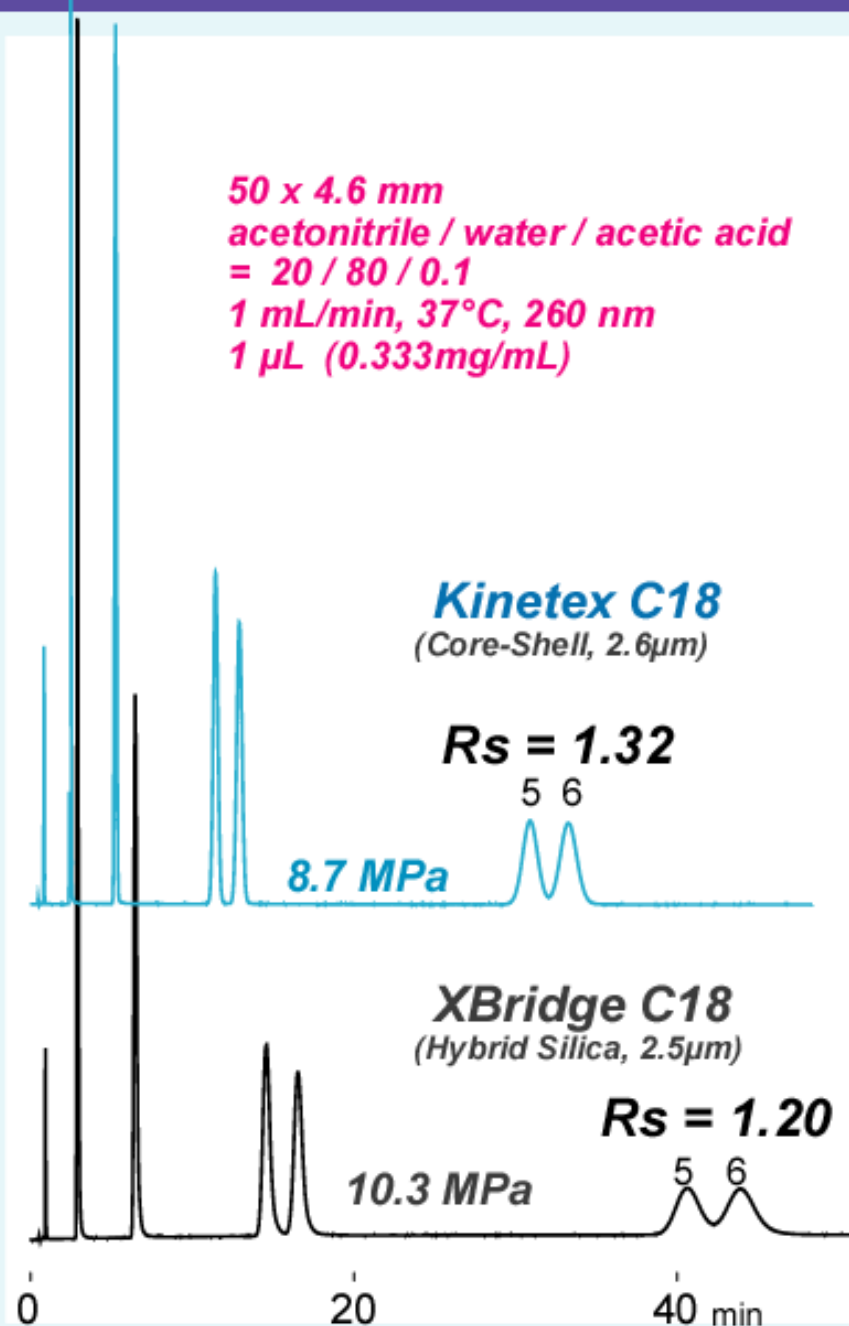
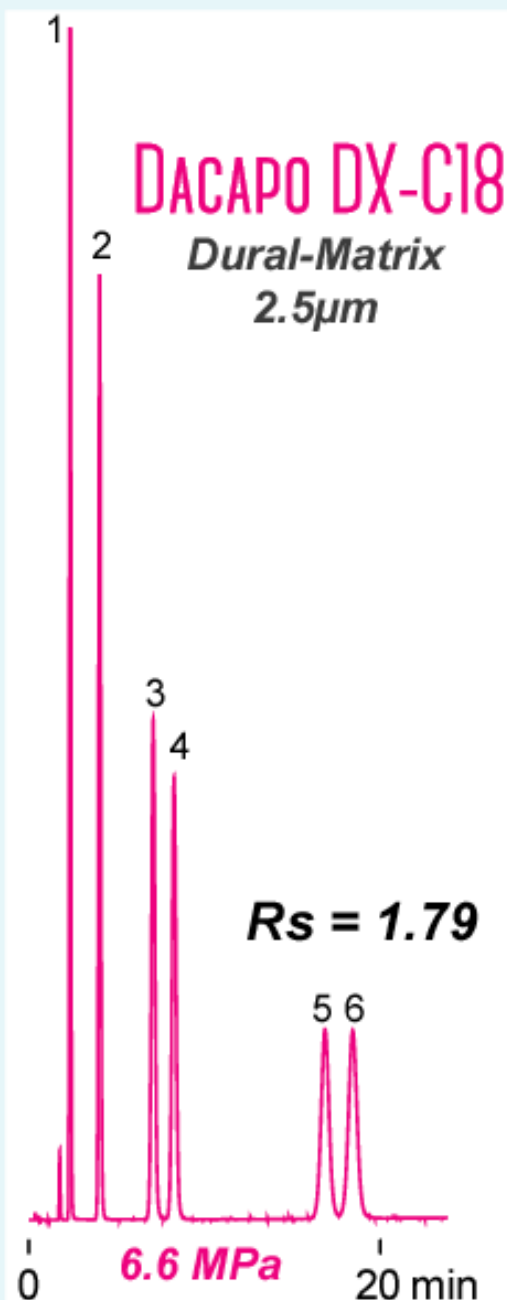


50 x 4.6 mm, A: water / formic acid = 100 / 0.1, B: acetonitrile / formic acid = 100 / 0.1
10-60 %B (0-5min), 1 mL/min, 37 °C, 260 nm, 1 µL (0.1mg/mL, 0.5% HCOOH)

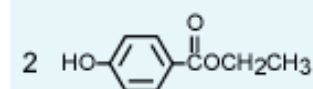


Paraben Isomers

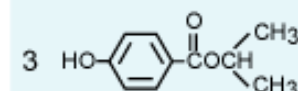
DACAPO DX-C18



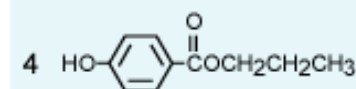
methyparaben



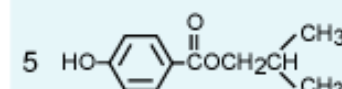
ethylparaben



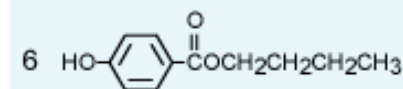
isopropylparaben



propylparaben



isobutylparaben



butylparaben