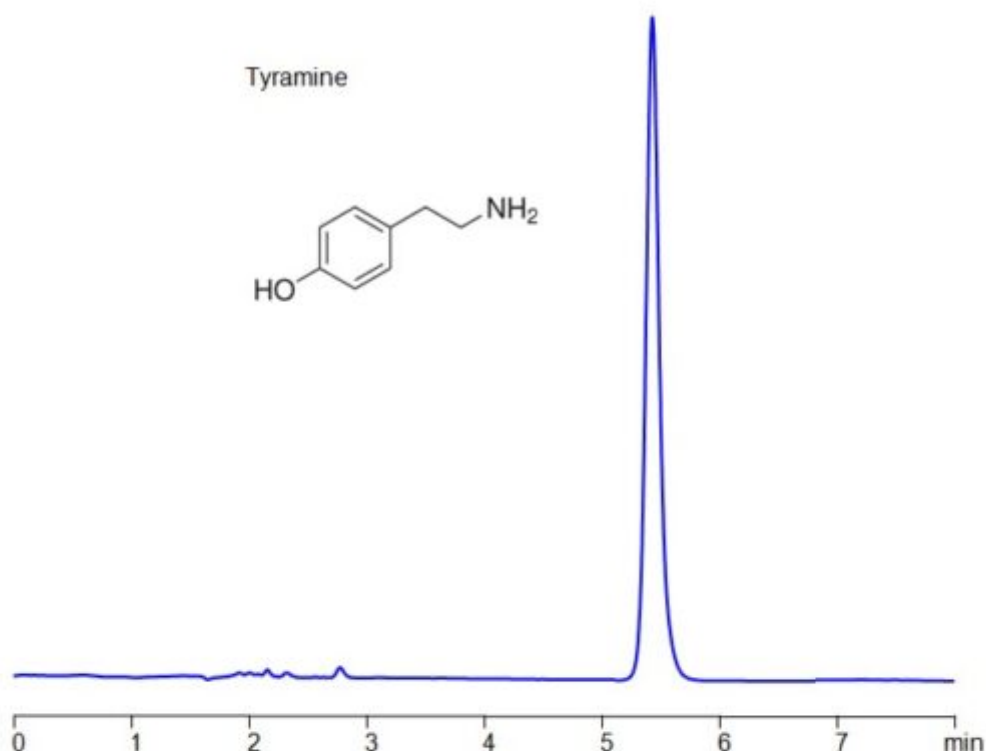


HPLC Method for Analysis of Tyramine on Primesep 100 Column

<https://sielc.com/hplc-method-for-analysis-tyramine>

Chromatogram



Column:	Primesep 100
Column size:	4.6 × 150 mm, 5 µm
Column part number:	100-46.150.0510
Mobile phase:	MeCN - 50%
Buffer:	H ₂ SO ₄ - 0.1%
Flow rate:	1.0 ml/min
Detection:	UV 222 nm
Injection Volume:	2 µL
Sample:	0.5 mg/ml
Diluent:	MeCN – 50%
LOD:	28 ppb

Description

· HPLC Method for Analysis of Tyramine on Primesep 100 Column by SIELC Technologies

Tyramine is a naturally occurring monoamine compound with the molecular formula C₈H₁₁NO. As a monoamine oxidase (MAO) substrate, it is broken down by the enzyme MAO in the body. It belongs to the class of biogenic amines. It is typically found in fermented, aged, smoked, and dried foods. It is derived from the amino acid tyrosine and is found in various foods. Tyramine is particularly known for its potential role in certain food sensitivities and interactions with monoamine oxidase inhibitors (MAOIs), a class of medications. It is a trace amine and has been studied for its potential physiological effects, including its role as a neurotransmitter and its impact on blood pressure regulation. Tyramine is notable for its interaction with MAOIs, a class of antidepressant medications. In individuals taking MAOIs, the consumption of foods high in tyramine can lead to a hypertensive crisis. You can find detailed UV spectra of Tyramine and information about its various lambda maxima by visiting the following link.

Tyramine can be retained and analyzed using a Primesep 100 mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase comprising water, acetonitrile (MeCN), and sulfuric acid as a buffer. This method allows for detection using UV at 222 nm

Method Parameters

Mobile Phase	MeCN/H ₂ O – 50/50%
Buffer	H ₂ SO ₄ – 0.1
Flow Rate	1.0 ml/min
Detection	UV 222 nm
Samples	0.5 mg/ml in MeCN/H ₂ O – 50/50%
Injection volume	2 µl
LOD*	28 ppb
Class of Compounds	Biogenic amine
Analyzing Compounds	Tyramine

HPLC Column Used

Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended

[Order this column at hplc-shop.de →](https://www.hplc-shop.de)