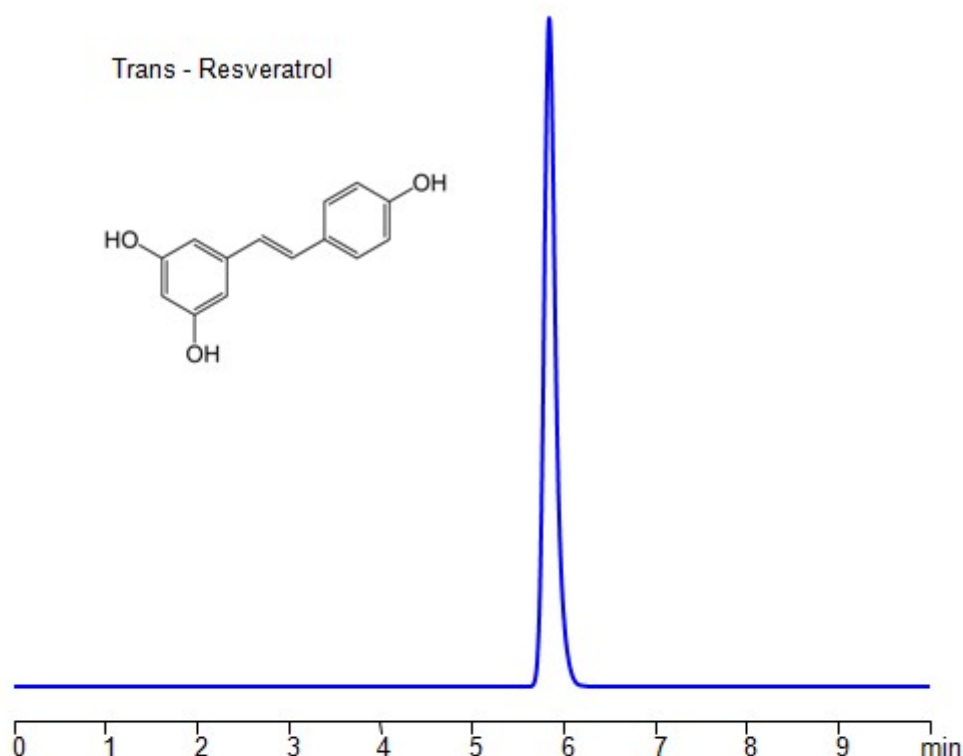


HPLC Method for Analysis of Trans – Resveratrol on Newcrom R1 Column

<https://sielc.com/hplc-determination-of-trans-resveratrol>

Chromatogram



Column:	Newcrom R1
Column size:	4.6 × 150 mm, 5 µm
Column part number:	NR1-46.150.0510
Mobile phase:	MeCN - 30%
Buffer:	H ₂ SO ₄ – 0.1%
Flow rate:	1.0 ml/min
Detection:	UV 305 nm
Injection Volume:	1 µL
Sample:	1.0 mg/ml
Diluent:	MeCN – 50%
LOD:	5 ppb

Description

Trans-resveratrol is a natural compound with the chemical formula C₁₄H₁₂O₃. It belongs to a class of polyphenolic compounds called stilbenes. Polyphenols are organic compounds found in plants and are known for their antioxidant properties. Resveratrol is specifically found in various plants, including the skin of red grapes, peanuts, and certain berries. Resveratrol exists in two main isomeric forms: trans-resveratrol and cis-resveratrol. The trans form is the more stable and biologically active isomer. Resveratrol can help neutralize free radicals in the body. Free radicals are unstable molecules that can contribute to oxidative stress and damage cells. Resveratrol has been studied for its potential health benefits, including its role in cardiovascular health, anti-inflammatory effects, and potential anti-cancer properties. Some research suggests that resveratrol may have cardioprotective effects and could contribute to overall health. Red wine is often cited as a dietary source of resveratrol, as the compound is present in grape skins. However, the concentration of resveratrol in red wine is relatively low,

and it would be challenging to consume enough through wine alone to achieve potential health benefits. Resveratrol supplements are also available and are marketed for their potential health-promoting properties. However, the effectiveness of these supplements and the optimal dosage for various health conditions are still subjects of ongoing research. You can find detailed UV spectra of Trans-Resveratrol and information about its various lambda maxima by visiting the following link.

Trans-Resveratrol be retained and analyzed on a reversed-phase Newcrom R1 column with a mobile phase consisting of water, Acetonitrile (MeCN), and sulfuric acid. This analytical method can be detected with high resolution and peak symmetry at a wavelength of 265 nm using UV detection

Method Parameters

Mobile Phase	MeCN – 30%
Buffer	H2SO4 – 0.1%
Flow Rate	1.0 ml/min
Detection	UV 305 nm
Injection volume:	1 µL
Sample	1 mg/ml
Sample Diluent	MeCN/H2O – 50/50%
LOD*	5 ppb
Class of Compounds	Polyphenols
Analyzing Compounds	Trans-Resveratrol

HPLC Column Used

Newcrom R1, 4.6 x 150 mm, 5 µm, 100 A, dual ended

[Order this column at hplc-shop.de →](#)