

Determination of organic acids in white wine standard

Method:
HPLC

Matrix
wine

Application-No.:
127540

Substances: tartaric acid; malic acid; shikimic acid; lactic acid; acetic acid; citric acid; fumaric acid
Column: EC 250/4.6 NUCLEODUR® C₁₈ Gravity-SB, 5 µm
Phase: NUCLEODUR® C₁₈ Gravity-SB
REF number: 760619.46

Samples: commercial available white wine standard (orange chromatogram)
mix of organic acids in the same concentration (blue chromatogram)

Sample pretreatment: Samples are diluted 1:5 with eluent and filtered with CHROMAFIL® Xtra PET 20/13 (REF 729222).

Conditions: Eluent: 50 mmol/L NaH₂PO₄, pH 2.7
Flow rate: 0.40 mL/min
Temperature: 30 °C
Injection volume: 10 µL

Detection: UV, 205 nm

Author(-s): Application department

Source: MACHEREY-NAGEL, Germany 2016

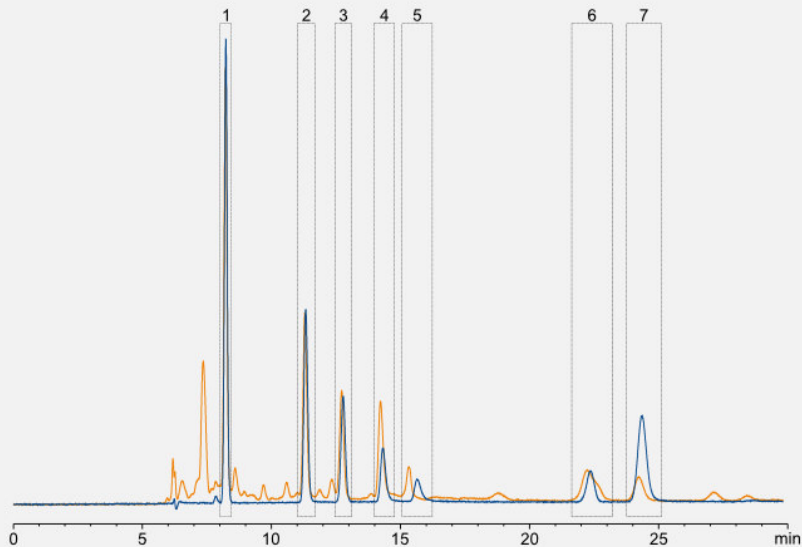
Keywords: organic acids; wine



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Chromatogram:



Legend:

Number	Analyte	Concentration external calibration (n=3)
1	Tartaric acid	2.27 ± 0.00 g/L
2	Malic acid	2.53 ± 0.01 g/L
3	Shikimic acid	32.99 ± 0.11 mg/L
4	Lactic acid	3.70 ± 0.04 g/L
5	Acetic acid	0.96 ± 0.01 g/L
6	Citric acid	1.19 ± 0.01 g/L
7	Fumaric acid	6.76 ± 0.06 mg/L

Note:

It is useful to clean the analytical column periodically (e.g., using a short gradient to 50 % methanol).

More information about the determination of organic acids in fruit juices and white wines can be found in the selected MN application note 04/2017!