NQAC
Nestlé Quality Assurance Center
Dublin

Technical Datasheet

Analysis Name: Chlorogenic Acids by HPLC or UPLC UV

Method Number: LI-21.018

Scope of Application: An in-house validated HPLC-UV and UPLC-UV method for the quantitative determination of chlorogenic acid isomers and caffeine in liquid coffee extract and pure soluble coffee, extracted either from roasted or green beans. (Quantification of caffeic acid can only be done by UPLC).

The method has been validated in-house for soluble coffee. This method is not applicable to roasted and ground coffee, nor green beans, nor if protein or fat content exceed 10 g/ 100 g.
An application of the method to matrices not covered by this scope of application requires an additional validation.

This method is not accredited to ISO 17025. Validation data & measurement uncertainty may not be available. To request the analysis, please contact US: NQAC Customer Service for current cost and estimated Turn-Around-Time. Please be aware that TAT may change after submission due to supply chain and/or operational variables.

Description: Extraction of chlorogenic acids with methanol (80+20). Determination of chlorogenic acids by reversed-phase HPLC with UV detection at 325 nm. Determination of chlorogenic acids and caffeic acid by reversed-phase UPLC with UV detection at 325 nm. Determination of caffeine by reversed-phase HPLC or UPLC with UV detection at 275 nm.

Sample Weight Required: 25 g

Special Sample Information: Liquid samples require an original, unopened container.

Analytical Platform: UPLC

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Analyte Reported	Unit of Measure	Limit of Quantification	Reproducibility
3-caffeoylquinic acid	g/100 g	0.004	30%
Caffeine	g/100 g	0.004	30%
4-caffeoylquinic acid	g/100 g	0.006	30%
5-caffeoylquinic acid	g/100 g	0.005	30%
Caffeic acid	g/100 g	0.003	30%
4-ferruoylquinic acid	g/100 g	0.001	30%
5-ferruoylquinic acid	g/100 g	0.003	30%
4,5-dicaffeoylquinic acid	g/100 g	0.003	30%
3,5-dicaffeoylquinic acid	g/100 g	0.001	30%
3,4-dicaffeoylquinic acid	g/100 g	0.002	30%
Total Chlorogenic acids	g/100 g	0.001	30%