



Certificate of Analysis

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Lab Reference: 18-19452
 Submitted by:
 Date Received: 28/05/2018
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 Order Number:
 Reference:

Report Comments

Samples were collected by yourselves (or your agent) and analysed as received at Analytica Laboratories. Samples were in acceptable condition unless otherwise noted on this report.

Results Summary

3in1 Honey Analysis

Laboratory ID	Sample ID	Dihydroxyacetone (DHA)	Methylglyoxal (MG)	Non-peroxide Activity* (NPA)	Hydroxymethylfurfural (HMF)
		mg/kg 10	mg/kg 4	%w/v phenol eq. 0.8	mg/kg 1
18-19452-1	1611	438	199	8.5	6

3in1 Honey Analysis Approver:

Michael Hutcheson, B.Sc.
 Senior Technologist

Leptosperin Analysis

Laboratory ID	Sample ID	Leptosperin
		mg/kg 20
18-19452-1	1611	662

Leptosperin Analysis Approver:

Michael Hutcheson, B.Sc.
 Senior Technologist

Method Summary

3in1

Determination of Dihydroxyacetone (DHA), Methylglyoxal (MG) and Hydroxymethylfurfural (HMF) by aqueous extraction, derivatisation, and UPLC analysis.

Method Summary

NPA

Non-Peroxide Activity (NPA) values are not directly measured by the laboratory, but are calculated from the measured methylglyoxal concentration in the honey according to the requirements of the client. The calculation is based on published data^(†) comparing the NPA and methylglyoxal concentration measured in a range of honey samples. These calculated values are not accredited by IANZ and do not imply that the honey is or is not manuka honey. NPA values less than 5 are an estimate based on extrapolation of the relationship between methylglyoxal and NPA

(†) Isolation by HPLC and characterisation of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey. C. J. Adams, et al. Carbohydrate Research 343 (2008) 651-659. And, Corrigendum to "Isolation by HPLC and characterization of the bioactive fraction of New Zealand manuka (Leptospermum scoparium) honey" [Carbohydr. Res. 343 (2008) 651]. Carbohydrate Research 344 (2009) 2609. C. J. Adams, et al.

Leptosperin

Aqueous extraction, dilution, analysis by UPLC.