



Certificate of Analysis

Client: Egmont Honey Limited	Lab No: 2498700	HSDMASP-4v2
Contact: Nick Walker	Date Received: 22-Dec-2020	
C/- Egmont Honey Limited	Date Reported: 07-Jan-2021	(Amended)
21 Connett Road	Quote No: 105847	
Bell Block	Order No:	
New Plymouth 4312	Client Reference:	
	Submitted By: Celine Ye	

Manuka Honey Analysis

Sample Name:	Lab Number	Dihydroxyacetone (DHA) mg/kg	Methylglyoxal (MGO) mg/kg	Non Peroxide Activity (NPA)* % Phenol Equivalent	5-Hydroxymethylfurfural (HMF) mg/kg
20EG-503	2498700.4	281	109	5.9	5.6

Manuka Honey Analysis

Sample Name:	Lab Number	Leptosperin mg/kg
20EG-503	2498700.4	280

Supplementary Report: This report is a supplement to an earlier report. It may represent a subset of the requested tests.

Analyst's Comments

Amended Report: This certificate of analysis replaces report '2498700-HSDMASP-4v1' issued on 22-Dec-2020 at 4:54 pm. Reason for amendment: Sample name amended.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Honey

Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
3-in-1 Honey Method	Aqueous extraction, derivatisation. Analysis by uHPLC / UV-Vis (dihydroxyacetone, 5-hydroxymethylfurfural, methylglyoxal). In-house.	-	4
Leptosperin	Aqueous extraction, dilution, analysis by LC-MS/MS.	15 mg/kg	4
Non Peroxide Activity (NPA)*	NPA is calculated from methylglyoxal using a correlation curve based on published data for NPA and the primary active ingredient, methylglyoxal. (1,2). (1) Isolation by HPLC and characterisation of the bioactive fraction of New Zealand manuka (<i>Leptospermum scoparium</i>) honey. C. J. Adams, et al. Carbohydrate Research 343 (2008) 651-659. (2) Corrigendum to "Isolation by HPLC and characterization of the bioactive fraction of New Zealand manuka (<i>Leptospermum scoparium</i>) honey" [Carbohydr. Res. 343 (2008) 651]. C. J. Adams, et al. Carbohydrate Research 344 (2009) 2609.	1.0 % Phenol Equivalent	4



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These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Dates of testing are available on request. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

A handwritten signature in blue ink that reads "B. D. Morris". The signature is written in a cursive, flowing style.

Bruce Morris PhD
Senior Technologist - Food & Bioanalytical