

CERTIFICATE OF ANALYSIS

SAMPLE NAME		Finger Lime Extract Pink	
FORM		Liquid	
CUSTOMER NAME		Plant Extracts	
CERTIFICATION DATE		31 October 2019	
CUSTOMER REFERENCE		0058CC1909/2	
ARL JOB #	A192425	LAB REF. #	ARL1906613
ANALYSIS	LCMS Compositional analysis	METHOD	ARL-TM125
TEST PROFILE (below)		Finger Lime Extract Pink 0058CC1909/2	

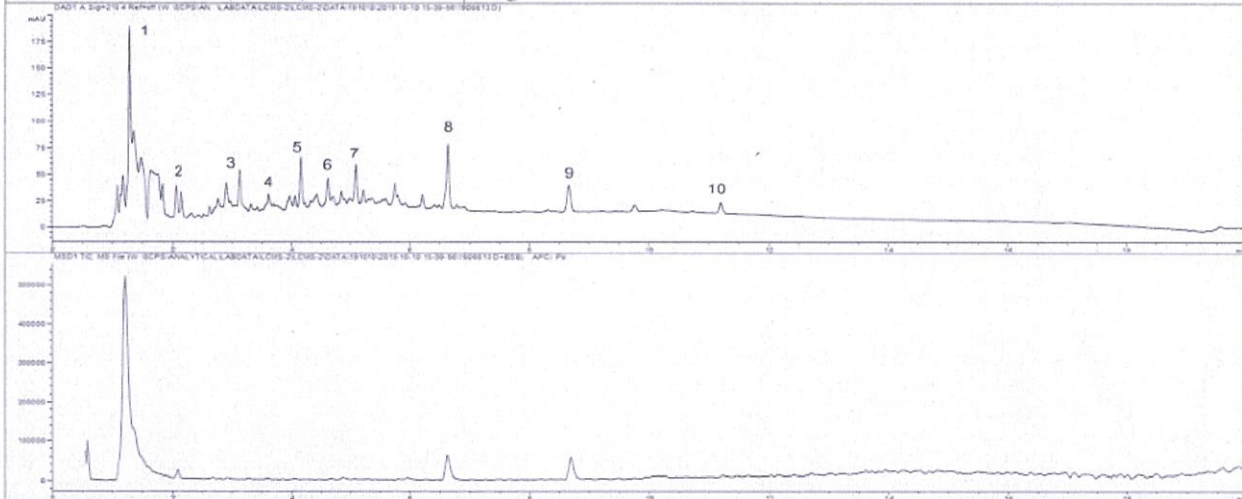
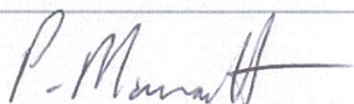


TABLE 1. PEAK IDENTIFICATION

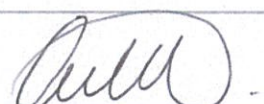
Peak #	RT (min)	Fragment ions [M+H]	Tentative ID (MW)
1	1.0 - 1.5	130, 216	amino acids, amines
2	2.0, 2.3	188, 205	amino acid (tryptophan), phenolic
3	2.9, 3.2	193, 231	phenolic acids
4	3.6	317, 449	flavonoid derivatives
5	4.1, 4.2	579, 433	flavone C-glycosides
6	4.7	595	flavone glycoside
7	5.1	479, 509	flavonone glycoside
8	6.7	231, 317, 335, 352, 577, 603	mixed peak - benzopyranone derivative (byangelicin),
9	8.7	217, 247	benzopyranone (bergapten) derivative
10	11.2	413, 471, 531, 545	limonoid derivative

COMMENTS

The HPLC-MS profile of the test sample is given above with some major components from the plant extracts indicated. The major peaks identified are a range of amine or amino acids, phenolic acid, flavonoid O and C-glycosides, methoxy-benzopyranone derivatives including bergapten derivatives. Spectral data in support of peak identification is attached.



Peter Mouatt
SENIOR ANALYTICAL OFFICER



Ashley Dowell
MANAGER - ARL

Reference: Dictionary of Natural Products, CRC Press, 2019

List of Plants

C BYANGELICIN

Chemid

BYANGELICIN

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Plant	Part	Low PPM	High PPM	StdDev	*Reference
Citrus paradisi	Pericarp	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

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Chemid

BYANGELICIN

Ubiquitous

No

Data Views

 Total Plants: 1
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Plant	Part	Low PPM	High PPM	StdDev	Reference
Citrus paradisi	Pericarp	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

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