



INSTITUT PENYELIDIKAN PERHUTANAN MALAYSIA

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Ruj Kami : FRIM(S).600-5/6/9klt.3(72)

Tarikh: 31/12/2021

ARMILA BERHAD,
16, 15/24, Jalan Linggis 15/24,
Seksyen 15, 40200 Shah Alam, Selangor

Dr./Tuan/Puan,

PER: UJIAN ANTIOKSIDAN

Kod Sampel : AO (TS) 35 12 21

J/No : 12/21

Dengan segala hormatnya merujuk perkara di atas.

2. Keputusan analisis antioksidan terhadap sampel yang dihantar adalah disertakan dalam lampiran. Keputusan analisis ini tertakluk keatas sampel yang tertera di atas sahaja. Pihak FRIM tidak terbabit dengan apa – apa jua prosiding undang – undang yang berkaitan dengan hasil analisis yang dijalankan.

3. Pihak FRIM komited dalam memastikan kerahsiaan maklumat pelanggan yang diberikan kepada kami sepanjang tempoh perkhidmatan dilaksanakan.

Pihak FRIM ingin mengucapkan terima kasih atas sokongan tuan/puan dalam menggunakan perkhidmatan kami.

“WAWASAN KEMAKMURAN BERSAMA 2030”

“BERKHIDMAT UNTUK NEGARA”

Saya yang menjalankan amanah,

(.....)

Ihsan Safwan Bin Kamarazaman

Program Bioaktiviti

Bahagian Hasil Semulajadi

b.p. Ketua Pengarah FRIM

No. Tel : 03-6279 7713

No. Fax : 03-6272 9805

E-mail : ihsan@frim.gov.my

No Dokumen: 10298704

TEST REPORT

Sample Code : AO (TS) 035 12 21

J/No : 12/21

CLIENT DETAILS

Name & Add. : ARMILA BERHAD
16, 15/24, Jalan Linggis 15/24,
Seksyen 15, 40200 Shah Alam
Selangor
Tel. : 013-327 8287
E-mel :
Date received : 09/12/2021
Sender's Name : Nozie bin Muhamad Nor
IC No. : 891208-14-6693

Antioxidant testing

FRIM offers antioxidant testing to herbal industries and companies to evaluate the antioxidant activity of herbal products, herbal drinks, fruit juices, health food, food supplements, tea products, plant extracts, herbal tablets, capsules and powders. Free-radicals are produced during aerobic metabolism where oxygen is used to oxidize the food we eat, to produce energy. The samples can be tested for antioxidant related bioassays as below:

	Antioxidant Bioassay	Test Concentration	
1	Xanthine/Xanthine Oxidase Superoxide Scavenging System The assay evaluates the scavenging activity of the sample on superoxide free-radical anions. The assay utilizes xanthine oxidase to generate superoxide, which is detected by the reaction with tetrazolium salt from the absorbance of the formed formazan dye. IHM MBIO 1.20 (Chang et al., 1996)	40 µg/ml	Effective concentration (EC ₅₀)
2	DPPH Radical Scavenging Assay The assay evaluates the reducing activity of the sample that determines its antioxidant potential (AOP). IHM MBIO 1.10 (a) (Blois, 1958) IHM MBIO 1.10 (b) (Blois, 1958 & Peng et al., 2007)	1 mg/ml	Effective concentration (EC ₅₀)
3	Tyrosinase Inhibitory Assay The assay evaluates the antioxidant ability of the sample to inhibit the catalytic pathway of melanin pigment biosynthesis, thus resulting in skin whitening property. IHM MBIO 1.30 (Tomita et al., 1990)	150 µg/ml	
4	Total Phenolic Content (TPC) Determination Total Phenolic Content Analysis indicates the amount of Polyphenols in the sample tested equivalent to Gallic Acid standard. IHM MBIO 1.40 (Singleton & Rossi, 1965)	200 µg/ml	
5	Elastase Inhibitory Assay The assay evaluates the ability of the sample to protect and preserve natural elastin from damaging elastase. IHM MBIO 1.90 (Kim JH et al., 2009)	2.5 mg/ml	

Disclaimer: This report based on in-vitro antioxidant bioassays under laboratory conditions and is NOT an efficacy assurance permit. The results apply only to the specific test sample submitted by the company and are NOT applicable to other similar products. This report does NOT imply that FRIM approves, recommends or endorses the product or guarantees the performance of the product. The result do NOT indicate that the samples are safe/good for consumption/usage. The result do NOT indicate that the samples can cure oxidative related diseases. FRIM does NOT hold responsibility over any antiinflammatory claims of the samples or adverse/ toxic effect of the products. This report shall NOT be reproduced or used for advertising purposes by any means of form.



RESULTS

Table 1: Antioxidant Analysis

No	Sample Code	Sample Title	Sample Description	DPPH Free Radical Scavenging Activity (%)
	AO (TS) Sample Concentration			1 mg/ml
1.	035 12 21	Prowhite Tablet Kak Ell	Tablet	85.89 ± 1.29 H

Data expressed as percentage of radical scavenging activity, is mean value of triplicate wells in duplicate experiments, Standard error of mean (SEM) < 15%.

☒ **H** High (70-100%) ☐ **M** Moderate (50-69%) ☐ **L** Low (0-49%) ☐ **NT** Not Tested ☐ **ND** Not Detected

Remark:

Certified by,



.....
Ihsan Safwan Bin Kamarazaman
Research Officer
Bioactivity Programme

Date : 31/12/2021

END OF TEST REPORT

Disclaimer: This report based on in-vitro antioxidant bioassays under laboratory conditions and is NOT an efficacy assurance permit. The results apply only to the specific test sample submitted by the company and are NOT applicable to other similar products. This report does NOT imply that FRIM approves, recommends or endorses the product or guarantees the performance of the product. The result do NOT indicated that the samples are safe/good for consumption/usage. The result do NOT indicate that the samples can cure oxidative relate diseases. FRIM does NOT hold responsibility over any antiinflammatory claims of the samples or adverse/ toxic effect of the products. This report shall NOT be reproduced or used for advertising purposes by any means of form.



SIRIM QAS International Sdn. Bhd.
(Company No.: 199601037981 (410334-X))
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TEST REPORT

REPORT NO : 2021CE1595-S1	PAGE : 1 OF 6
This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This Test Report shall not be reproduced, except in full and shall not be used for any purpose by any means or forms (including but not limited to advertising purposes) without written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE), SIRIM QAS International Sdn. Bhd. Please refer to the last page of this Test Report for Conditions Relating to the Use of Test Report.	

THIS TEST REPORT IS ISSUED IN SECURED PDF SOFTCOPY

Applicant : ARMILA GROUP SDN BHD
No. C, Persiaran Alam Avenue, 8-1,
Jalan Serai Wangi H 16/H, Seksyen 16,
40200 Shah Alam, Selangor, Malaysia

Manufacturer : ENSU LIFESCIENCES SDN. BHD
10G, Green Square Shop, Jalan Hijau 5/4,
Bandar Tasik Puteri, Rawang,
48020 Rawang, Selangor, Malaysia

Product : Tablet Kunyahan Prowhite Kak Ell

Reference Standard / Method of Test : Please refer to the next pages for details.

Description of sample : Received one (1) sample of Tablet Kunyahan Prowhite Kak Ell for testing which was identified as in next pages.

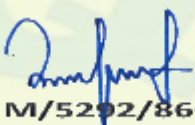
Date Received of Complete Application : 23 September 2021

Job No. : J20211401209

Description of Test Results : The test results of the submitted test sample is described in Page 2 to 5 of this test report.

Issued Date : 03 November 2021

Approved Signatory;


IKM M/5292/8660/20

(MUHAMMAD ZUHAIRI BIN BORHAN)
Testing Executive




(HAHNAS BINTI MAHBUT)
Head
Chemical & Consumer Section
Testing Services Department

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Notes:

1. This is a supplementary test report.
2. This supplementary test report is issued to include microbiological test report as a continuation of test report 2021CE1595.
3. This supplementary test report cancels and replaces the original SIRIM Test Report No. 2021CE1595 dated 5 October 2021.

TEST RESULTS

Product : Tablet Kunyahan Prowhite Kak EII
Brand : Armila Group
Model : Kak EII
Type : Tablet Kunyahan
Size : 1000mg
Description : Tablet Kunyahan Blackcurrant dengan Tomato

No.	Type of Tests	Methods	Results	Measurement uncertainty
1.	Nutrition			
	a) Energy, kcal/100g ⁽¹⁾	Calculation (Food energy - methods of analysis and conversion factors)	364	± 22
	b) Carbohydrate, g/100g ⁽¹⁾	Calculation (Food energy - methods of analysis and conversion factors)	83.9	± 3
	c) Protein, g/100g	CEST/TP/MM/In-House 009 based on AOAC 981.10	6.8	± 0.2
	d) Fat, g/100g	CEST/TP/MM/In-House 010 based on AOAC 960.39	0.2	± 0.003



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TEST RESULTS

Product : Tablet Kunyahan Prowhite Kak EII
Brand : Armila Group
Model : Kak EII
Type : Tablet Kunyahan
Size : 1000mg
Description : Tablet Kunyahan Blackcurrant dengan Tomato

No.	Type of Tests	Methods	Results	Measurement uncertainty
2.	Other tests			
	a) Total Inverted Sugar, g/100g	Japan Customs Analysis Methods No. 108 (Clause 6.1.2.2)	11	± 0.1
	b) Sodium (Na), mg/100g ⁽¹⁾	In-House based on AOAC 984.27 by ICP-OES	11.7	± 1



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TEST RESULTS

Product : Tablet Kunyahan Prowhite Kak EII
Brand : Armila Group
Model : Kak EII
Type : Tablet Kunyahan
Size : 1000mg
Description : Tablet Kunyahan Blackcurrant dengan Tomato

No.	Type of Tests	Requirements of Food Act 1983 & Regulations 1985 ⁽²⁾	Results	Remarks
1.	Heavy Metals			
	a) Arsenic (As), mg/kg (CEST/TP/MM/In-House 013)	1 max	< 0.03 ⁽³⁾	Pass
	b) Lead (Pb), mg/kg (CEST/TP/MM/In-House 013)	1 max	< 0.02 ⁽³⁾	Pass
	c) Cadmium (Cd), mg/kg (CEST/TP/MM/In-House 013)	1 max	< 0.01 ⁽³⁾	Pass
	d) Antimony (Sb), mg/kg (CEST/TP/MM/In-House 013)	1 max	< 0.01 ⁽³⁾	Pass
	e) Mercury (Hg), mg/kg (CEST/TP/MM/In-House 015)	0.05 max	< 0.001 ⁽³⁾	Pass

Note :

- 1) Not-SAMM Accredited. Test marked "Not-SAMM Accredited" in the report are not included in SAMM Accreditation Schedule of our laboratory.
- 2) Requirement of Food Act 1983 & Regulation 1985, Fourteenth Schedule (Regulation 38).
- 3) Limit of reporting.
- 3) The reported uncertainties were calculated using coverage factor of 2 which gives a level confidence of approximately 95%.
- 4) Simple acceptance rule is used for the conformity statement. The level of risk regarding the probability of false accept is up to 50%.
- 5) Testing period – 21st September to 4th October 2021.



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TEST RESULTS

Product : Tablet Kunyahan Prowhite Kak EII
Brand : Armila Group
Model : Kak EII
Type : Tablet Kunyahan
Size : 1000mg
Description : Tablet Kunyahan Blackcurrant dengan Tomato

Microbiology Content^(a)

Please Refer REPORT NO. R 1098/21/B19/83

Note : ^(a) Externally provided by Industrial Biotechnology Research Centre, SIR, SIRIM Berhad



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1. A Test Report will be issued in respect of Testing Services conducted and shall relate only to the sample actually tested. SIRIM QAS International makes no warranty whatsoever and the Applicant shall not represent in any manner that any duplication or mass production of the Product is same as the sample actually tested or that SIRIM QAS International has tested any of the duplicated or mass-produced Product. Measurement uncertainty shall be included in the Test Report when there is no statement of conformity required. When a statement of conformity to a specification or standard is applied, the Simple Acceptance Rule is used. Unless otherwise stated, the Acceptance Rule with Guard Band is used.
2. The Test Report shall not be misused, amended, changed, varied or modified in any manner whatsoever by the Applicant or otherwise.
3. If the Test Report is to be furnished to any third party or to the public, each such Test Report shall be furnished in full, legible and in its entirety.
4. The Test Report shall not be reproduced and shall not in any event be used for any advertising purposes or whatsoever without written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International of No 1, Persiaran Dato' Menteri, Building 8, Section 2, P.O. Box 7035, 40700 Shah Alam, Selangor Darul Ehsan.
5. Customer (Applicant/Manufacture/Factory, etc.) is not permitted to use any SIRIM QAS International, SIRIM or other SIRIM's subsidiaries logo or words on packaging, sample's manual, technical specification, items and products.
6. Subject to consent and written approval from the Head of Quality, Occupational Safety and Health & Environment (QOSHE) of SIRIM QAS International, the customer (Applicant/Manufacture/Factory, etc.) may use SIRIM QAS International logo or word on the promotional materials and the Applicant shall only include the phrase, "A sample of this product has been tested by SIRIM QAS International ...(Test Report No) ...(dated) ...(for what test) ...(to which standard)" or such similar words which stress that only the sample was actually tested. This phrase shall only be used for the purpose of product advertisement or product promotion (eg; brochures/flyers/official website). For avoidance of doubt, the statement shall not be used on the sample, packaging of the sample, items and products.
7. In the event there is an investigation from a Government Regulatory Agency concerning the Applicant's Test Report, SIRIM QAS International may disclose the information pertaining to the Test Report for purposes of such investigation.
8. Further or in the alternative, it is strictly forbidden unless with prior written approval from the Chief Executive Officer of SIRIM QAS International, to represent in any manner whatsoever that SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries has endorsed, approved or validated the Product of the Applicant in any manner whatsoever.
9. In the event the Applicant is found in breach of this provision, SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries without prejudice to any other rights and remedies may take whatever action necessary including but not limited to:
 - a) Informing and placing a notice in the media;
 - b) Obtaining an injunction from Court (cost on a solicitor-client basis to be borne by the Applicant);
 - c) Refusing to accept any further Product for Testing Services from the Applicant or whosoever related to the Applicant, whether subsidiary or otherwise;
 - d) Instructing the Applicant to withdraw and recall the advertisement, statement or document in question and advertise a clarification and apology to SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries twice in a national publication of SIRIM QAS International's choice at the Applicant's sole cost; and
 - e) Informing or lodging a report pertaining the Applicant's Test Report with the relevant authorities.
10. SIRIM QAS International is committed in supporting an environmentally-friendly business practices by reducing paper consumption, therefore we do not issue any hard copy of Test Report to the Applicant. However, additional certified true copy(ies) or softcopy of the Test Report may be issued upon request by the Applicant upon payment of the relevant fee. The certified true copy(ies) or softcopy of test report shall only be given for test report issued not more than three (3) years from the date of issuance.
11. Issuance of Amendment Report due to the following reasons are chargeable to the Applicant :
 - a) Changes in details of the Applicant name and/or address;
 - b) Changes in details of the Manufacturer's name and/or address;
 - c) Changes in details of the Factory location name and/or address;
 - d) Changes in details of the model and/or type designation
12. However, issuance of Supplementary Report due to the following reasons are FOC :
 - a) Misprints and typo errors;
 - b) Missing technical information as agreed in PP1 form;
 - c) Test data not reported;
 - d) Mistake in reporting of test data
13. Corrections to report shall only be allowed if the date of issuance of the original report has not exceeded 6 months and shall be limited to a maximum 3 times, after either case whichever occurs earlier, an Amendment or a Supplementary Report shall not be issued.