

LABORATORY SERVICES

Bridge to a better product



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C H E M I C A L

PROXIMATE

Moisture Content
Total Ash
Protein
% Nitrogen
Total Fat - Soxhlet
Total Fat – Roese Gottlieb
Total Fat – Direct Extraction
Crude Fiber
Carbohydrate (by difference)
Total Energy (by calculation)
Total Dietary Fiber

VITAMIN

Vitamin A (as β -carotene)
Vitamin B1
Vitamin B2
*Vitamin B3 (as Niacin)
*Vitamin B5
*Vitamin B6
Vitamin C (as Ascorbic acid)
Vitamin E (α – tocopherol)
#Vitamin K
#Vitamin B7
#Vitamin B9
#Vitamin B12
#Vitamin D
#Choline

ANTIOXIDANT

#TBHQ
*Total Polyphenol (GAE)
*DPPH
*FRAP
*Antocyanine
#Lycopene

* HEAVY METAL

Arsenic
Antimony
Cadmium
Plumbum / Lead
Mercury
Stanum
Copper
Zinc
Chromium
Stanum (Tin)
Yterbium
Cobalt
Molybdenum
Argentums (Silver)
Nikel
Vanadium
Barium

MINERAL

Calcium
Ferum / Iron
Kalium / Potassium
Magnesium
*Manganese
Natrium / Sodium
*Phosphorus
*Selenium

* SUGAR

Sugars in food (Glucose, Fructose, Sucrose & Maltose)
Lactose
Galactose
Sucrose
Maltose
Fructose
Glucose

MISCELLANEOUS

Cholesterol
*Fatty Acid Profile in Food
*Brix
*Caffeine
Acidity of Food Products
pH in Food
Salt as NaCl
*Color
*Texture Profile
*Water Activity
*Viscosity
*Total sulphate
*Amylose / Amylopectin
3-MCPD
#Corticosteroids
#Phytosterols (stigmasterol, campesterol, β -sitosterol)
#Steroid Profiling
#Sialic Acid
#Nitrate
#Nitrite
#FTIR
#FESEM
#Hydroquinone
#Retinoic Acid (Tretinoin)
#Radioactivity (Cs-134, Cs-137, Gross α & Gross β)
#Sibutramine
#Sildenafil, Vardenafil & Tadalafil
#Monoglycerides
#Diglycerides
#Triglycerides
*Aflatoxin (B1, B2, G1 and G2)
*Ochratoxin
#Disintegration

PRESERVATIVES

Benzoic acid
Sorbic Acid
*Boric acid – Qualitative
*Sulphur dioxide (Iodine Method)

PALM OIL / FAT / OIL / EXTRACTED OIL

Peroxide Value
Free Fatty Acid/ Acidity
Iodine Value
Moisture & Volatile Matter
Impurities
*Refractive Index
*Specific Gravity
*Cloud Point
*DOBI
*Carotene
*Color Lovibond
Slip Melting Point
*Saponification Value
*Unsaponification Value
*Acid Value
*Density

* AMINO ACID

Acid Hydrolysis
(Hydroxyproline, Asp, Ser, Glu, Gly, His, Arg, Thr, Ala, Pro, Tyr, Val, Lys, Ile, Leu & Phe)

Performic Acid Hydrolysis
(Cysteine and Methionine)

Alkaline Hydrolysis (Tryptophan)

C H E M I C A L

W A T E R

pH
 Color, Hz
 Turbidity, NTU
 *Aluminium, mg/L
 *Ammonia as N, mg/L
 *Antimony, mg/L
 *Arsenic, mg/L
 *Barium, mg/L
 *Boron, mg/L
 *Cadmium, mg/L
 *Chloride, mg/L
 *Chromium, mg/L
 *Copper, mg/L
 *Cyanide, mg/L
 *Free Chlorine, mg/L
 Fluoride, mg/L
 Total Hardness (CaCO₃), mg/L
 *Iron, mg/L
 *Lead, mg/L
 *Magnesium, mg/L
 *Manganese, mg/L
 *Mercury, mg/L
 Nitrate, N, mg/L
 *Nitrite, NO₂⁻, mg/L
 *Nickel, mg/L
 *Phenol compounds, mg/L
 *Sulfide, mg/L
 *Sulphate, mg/L
 *Selenium, mg/L
 *Sodium, mg/L
 *Stanum, mg/L
 *Argentums, mg/L
 *Calcium, mg/L
 *Potassium, mg/L
 Zinc, mg/L

W A T E R

Total Dissolved Solids
 Total Suspended Solids
 Total Solid
 *Chromium Hexavalent, mg/L
 *Oil and Grease
 *COD
 *BOD₅

H O N E Y

*Diastase Activity
 *Hydroxymethylfurfural (HMF)
 Free Acidity
 Ph In Honey
 Moisture in Honey
 Ash of Honey
 *Sugars in Honey
 *Trehalulose
 *Water Insoluble Solids

G C M S S C R E E N I N G

Non-Polar
 Polar

* P E S T I C I D E

*Organochlorine
 *Organophosphorus
 *Carbamate
 *Pyrethroids

M I C R O B

M I C R O B I O L O G Y

Total Plate Count
 Coliform (MPN Method)
E. coli (MPN Method)
 Coliform (Petrifilm)
E. coli (Petrifilm)
Staphylococcus aureus
 Yeast & Mould
 **Bacillus cereus*
 **Salmonella spp*
 *Coliform (Chromocult Agar)
 **E. coli* (Chromocult Agar)
 *Swab Test- TPC
 *Swab Test- *E. coli*
 *Swab Test- *S. aureus*
 *Swab Test- Salmonella
 *Swab Test- Coliform
 *Air Test - TPC
 **Listeria monocytogenes*
 **Enterobacteriaceae*
 *Lactobacillus Count
 **Clostridium perfringens*
 **Candida albicans*
 **Pseudomonas aeruginosa*
 *Effectiveness test – Bacteria
 *Effectiveness test - Fungi
 #*Burkholderia cepacia*
 #*Vibrio Cholera*
 #*Vibrio para*
 #*Shigella*
 #*Champylobacter*
 #*Campylobacter spp*

W A T E R

Coliform (Membrane Filter)
Escherichia coli (Membrane Filter)
 **Pseudomonas aeruginosa*, (CFU/100ml)
 **Clostridium perfringens*, (CFU/100ml)
 #*Faecal Streptococci*, (CFU/100ml)
 #*Sulphite reducing anaerobe*, (CFU/100ml)

H A L A L

C H E M I C A L

Alcohol

D N A

Porcine DNA
 *Bovine DNA
 *Fish DNA
 *Buffalo DNA



ANALYSIS
PACKAGE



NUTRITIONAL LABELING	
Malaysia (6 Parameters)	<ul style="list-style-type: none"> • Moisture • Ash • Protein • Total Fat (Soxhlet) • Carbohydrate (by difference) • Energy (by calculation) • *Total Sugar • Sodium • Total Dietary Fiber
USFDA	<ul style="list-style-type: none"> • Moisture • Ash • Protein • Total Fat (Soxhlet) • Carbohydrate (by difference) • Energy (by calculation) • Cholesterol • Total Dietary Fiber • Calcium, Iron, Sodium & Potassium • *Total Sugar • *Saturated Fat, Polyunsaturated, Monounsaturated & Trans- Fat • #Vitamin D

MICROBIOLOGY	
PACKAGE 1	<ul style="list-style-type: none"> • Enumeration of <i>E. coli</i> and Coliform Bacteria (MPN Technique) • Total Plate Count • Yeast & Mould • <i>Staphylococcus aureus</i> • *<i>Salmonella spp.</i>
PACKAGE 2	<ul style="list-style-type: none"> • Enumeration of <i>E. coli</i> and Coliform Bacteria (MPN Technique) • Total Plate Count • Yeast & Mould • <i>Staphylococcus aureus</i> • *<i>Salmonella spp.</i> • *<i>Bacillus cereus</i>
PACKAGE 3	<ul style="list-style-type: none"> • Enumeration of <i>E. coli</i> and Coliform Bacteria (MPN Technique) • Total Plate Count • Yeast & Mould • <i>Staphylococcus aureus</i> • *<i>Salmonella spp.</i> • *<i>Bacillus cereus</i> • *<i>Listeria monocytogenes</i>

WATER	
LABELING FOR WATER	<ul style="list-style-type: none"> • Calcium • Total Hardness (CaCO₃) • Sodium • Chloride • Kalium/ Potassium • Sulphate • Magnesium • pH • Total Dissolved Solid



H O N E Y	
<p>PACKAGE 1 (Based on CODEX STAN 12-1981)</p>	<ul style="list-style-type: none"> *Sugar Profiling *Hydroxymethylfurfural (HMF) *Diastase Activity Ash Moisture pH and Free Acidity
<p>PACKAGE 2 (Based on Food Act 1983 (Act 281) & Regulations)</p>	<ul style="list-style-type: none"> *Sugar Profiling Ash Moisture Free Acidity *Hydroxymethyl furfural (HMF)
<p>PACKAGE 3 Kelulut/ Stingless Bee Honey (Based on Malaysian Standard MS 2683:2017)</p>	<ul style="list-style-type: none"> *Sugar Profiling *Hydroxymethyl furfural (HMF) Ash Moisture pH *Trehalulose
<p>PACKAGE 4 (Based on table 14 & rule 38)</p>	<ul style="list-style-type: none"> *Arsenic *Lead *Mercury *Cadmium *Antimony

H E A V Y M E T A L	
<p>PACKAGE 1</p>	<ul style="list-style-type: none"> *Arsenic *Mercury *Cadmium *Lead
<p>PACKAGE 2</p>	<ul style="list-style-type: none"> *Arsenic *Mercury *Cadmium *Lead *Antimony
A M I N O A C I D	
<ul style="list-style-type: none"> *Amino Acid profile – Acid Hydrolysis (Hydroxyproline, Asp, Ser, Glu, Gly, His, Arg, Thr, Ala, Pro, Tyr, Val, Lys, Ile, Leu & Phe) *Amino Acid profile – Alkaline Hydrolysis Tryptophan *Amino Acid profile – Performic acid Hydrolysis (Cysteine and Methionine) 	

C O S M E T I C A N A L Y S I S	
Based on Guidelines for Control of Cosmetic Products in Malaysia-1st Revision Annex I, part 14- February 2017	
<p>PACKAGE 1 (Heavy Metal)</p>	<ul style="list-style-type: none"> *Arsenic *Lead *Mercury *Cadmium
<p>PACKAGE 2 (Microbiology)</p>	<ul style="list-style-type: none"> *<i>P. aeruginosa</i> *Total Aerobic Count *Yeast & Mould *<i>Staphylococcus aureus</i> *<i>Candida albicans</i> #<i>Burkholderia cepacia</i>



ANALYSIS

BY STANDARD

WATER AND PACKAGE DRINKING WATER (Based on 25th Schedule in Food Act 1983 (Act 281) & Regulations)

CHEMICAL STANDARD	<ul style="list-style-type: none"> *Arsenic *Aluminum *Ammonia as N *Antimony *Barium *Boron *Cyanide *Chloride *Cadmium *Chromium *Free Chlorine Fluoride *Silver as Ag Sodium as Na 	<ul style="list-style-type: none"> Total Hardness (CaCO₃) *Iron (Fe) *Lead (Pb) *Manganese *Mercury Magnesium Nitrate *Nitrites *Nickel *Phenol *Sulfate as SO₄ *Selenium Zinc
PHYSICAL STANDARD	<ul style="list-style-type: none"> pH Color Turbidity 	
BACTERIOLOGICAL STANDARD	<ul style="list-style-type: none"> Total Coliform *<i>E. coli</i> *Fecal <i>Streptococci</i> *<i>Pseudomonas aeruginosa</i> *<i>Clostridium perfringens</i> *Sulphite reducing anaerobe 	
RADIOACTIVITY	<ul style="list-style-type: none"> #Gross α #Gross β 	
PESTICIDE	<ul style="list-style-type: none"> *Organochlorine 	

NATURAL MINERAL WATER (Based on 26th Schedule in Food Act 1983 (Act 281) & Regulations)

CHEMICAL STANDARD	<ul style="list-style-type: none"> *Arsenic *Barium *Cadmium *Copper *Chromium Hexavalent *Cyanide Fluoride *Lead *Manganese *Mercury Nitrate *Nitrites *Selenium *Sulphide *Zinc
BACTERIOLOGICAL STANDARD	<ul style="list-style-type: none"> Total Coliform <i>E. coli</i>
RADIOACTIVITY	<ul style="list-style-type: none"> #Gross α #Gross β
PESTICIDE	<ul style="list-style-type: none"> *Organochlorine



GLYCEMIC INDEX
TESTED BY UNIQ



GLYCEMIC INDEX

The Glycemic Index (GI) is a relative ranking of carbohydrate in foods according to how they affect blood glucose levels.

Glycemic Index is a measure of the effects of carbohydrates on blood glucose levels. Carbohydrates that break down during digestion releasing glucose rapidly into the blood stream have a high GI.

Carbohydrates that break down slowly, releasing glucose gradually into the bloodstream, have a low GI.

Unipeq Sdn Bhd is the **FIRST laboratory in Malaysia that received the accreditation for GI Testing from Standards Malaysia**. Our laboratory is well equipped to conduct GI Testing on foods.

NUMBER OF PRODUCT	FEE PER PRODUCT (RM)
1	19,900
2-5	12,500
6-10	9,500
>10	8,000

Note: Fees are not subject to 6% SST

“TESTED BY UNIPEQ” SCHEME

TESTED BY UNIPEQ SCHEME

PACKAGE FOR “Diuji oleh UNIPEQ” / “Tested by UNIPEQ” SCHEME

Types of Industry	New Application (RM)		Renewal Application (RM)
	Administration Fee	Certification / Logo Fee	
Big Industry	150	500	500
Medium Industry	150	400	400
Small Industry	150	300	300
Micro Industry	150	250	250

TM



NUMBER OF SAMPLE	DISCOUNT
1	No Discount
2-5	5% Discount
6-9	8% Discount
10 and above	10% Discount

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HALAL PANEL LABORATORY /
HPB PUSAT LATIHAN HALAL



BIONEXUS PARTNER (BNP)
LABORATORY STATUS



SAMM NO. 330



PMAM MEMBERS



LABORATORY
EXCELLENCE AWARD