



ICA PROFESSIONAL LAB ANALYSIS AND SERVICES PRICE LIST 2025

INNOVATION CENTRE IN AGRITECHNOLOGY FOR ADVANCED BIOPROCESSING (ICA)

UNIVERSITI TEKNOLOGI MALAYSIA PAGOH CAMPUS

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CHEMICAL ANALYSIS	NO.	TYPE OF ANALYSIS	PRICE (RM)
	NATURAL PRODUCT RESEARCH 1 LABORATORY		
	1	HIGH PERFORMANCE LIQUID CHROMATOGRAPHY a. Diode Array Detector b. Fluorescence Detector c. New method development d. Sample preparation	200.00 / injection 200.00 / injection 500.00 - 700.00 / sample 20.00 – 60.00 / sample
	2	LIQUID CHROMATOGRAPHY MASS SPECTROMETER (LCMS) a. Chemical profiling b. Sample preparation	350.00 / injection 20.00 – 60.00 / sample
	NATURAL PRODUCT RESEARCH 2 LABORATORY		
	3	COLOUR a. Solid and Liquid b. Edited pictures of triplicates sample	15.00 / sample 5.00 / sample
	4	BENCH TOP FREEZE DRYING (3 days/ batch) Capacity: Stack 600 mL, Manifold 120 mL Additional day	200.00 / batch 80.00 / day
	5	MICROPLATE READER (Endpoint Reading)	15.00 / plate
	6	ANTIOXIDANT ASSAY (Reference: Ascorbic Acid) a. DPPH Assay b. ABTS Assay c. Sample Preparation d. Calculation sheet (Excel) e. Standard other than Ascorbic Acid (Standard by client)	120.00 / sample 120.00 / sample 20.00 – 60.00 / sample 10.00 / COA 200.00 / sample
	7	TOTAL PHENOLIC CONTENT (Reference: Gallic Acid) a. Sample preparation b. Calculation sheet (Excel) c. Standard other than Gallic acid (Standard by client)	120.00 / sample 20.00 – 60.00 / sample 10.00 / COA 200.00 / sample
	8	TOTAL FLAVANOIDS CONTENT (Reference: Rutin) a. Sample preparation b. Calculation sheet (Excel) c. Standard other than Rutin (Standard by client)	120.00 / sample 20.00 – 60.00 / sample 10.00 / COA 200.00 / sample
	NATURAL PRODUCT RESEARCH 3 LABORATORY		
	9	TOTAL RESIN EXTRACTION (4 hours) Additional extraction hour	60.00 / batch 10.00 / hour
	10	ESSENTIAL OIL EXTRACTION (4 hours) Additional extraction hour	60.00 / batch 10.00 / hour
	FOOD TECHNOLOGY 1 LABORATORY		
	11	ATR FOURIER-TRANSFORM INFRARED SPECTROSCOPY CSV File	50.00 / sample 20.00 / COA
	12	GAS CHROMATOGRAPHY – FLAME IONIZATION DETECTOR a. Fatty acid methyl ester (FAME) b. Bioethanol content c. Sample preparation	300.00 / injection 200.00 / injection 20.00 – 60.00 / sample

	13	PROXIMATE ANALYSIS (Nutritional Value) a. Total Protein b. Total Fat c. Ash d. Moisture content e. Crude Fiber f. Dietary Fiber g. Package price for food labelling according to Malaysia Food Act 1983 (Moisture, Ash, Fat, Protein, Carbohydrate, Energy)	70.00 / sample 50.00 / sample 30.00 / sample 30.00 / sample 60.00 / sample 220.00 / sample 250.00 / sample
	14	VISCOSITY (Room temperature)	10.00 / sample
	15	FOOD pH VALUE	10.00 / sample
AGRICULTURE ANALYSIS	INTEGRATED AGRICULTURE 1 LABORATORY		
	16	ELECTROCONDUCTIVITY AND pH VALUE	20.00 / sample
	17	MOISTURE CONTENT	30.00 / sample
	18	ORGANIC MATTER	40.00 / sample
	19	TOTAL NITROGEN (Kjeldahl Method)	60.00 / sample
	20	SOIL TEXTURE (Pipette Method)	50.00 / sample
	INTEGRATED AGRICULTURE 2 LABORATORY		
	21	WATER RETENTION (pF Determination System)	100.00 / sample
	22	PLANT PHYSIOLOGY (Licor Portable Photosynthesis System) Price excluding transportation, accommodation and staff cost	700.00 / day
MICROBIOLOGY ANALYSIS	MICROBIOLOGY BIOSAFETY LEVEL 2 LABORATORY		
	23	TOTAL PLATE COUNT (Food and Environmental)	50.00 / sample
	24	YEAST AND MOLD (Food and Environmental)	50.00 / sample
	25	LACTOBACILLUS (Food and Environmental)	60.00 / sample
	26	TOTAL COLIFORM (Food and Environmental)	60.00 / sample
	27	SALMONELLA (Food and Environmental)	60.00 / sample
	28	E. COLI (Food and Environmental)	60.00 / sample
	29	S. AUREUS (Food and Environmental)	60.00 / sample
	30	NITROGEN FIXING BACTERIA (Environmental)	60.00 / sample
	31	TRICHODERMA (Environmental)	60.00 / sample
	32	ANTIMICROBIAL TEST a. Bacteria: <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> , <i>Salmonella enterica</i> b. Fungus: <i>Candida albicans</i> , <i>Fusarium oxysporum</i> , <i>Botrytis cinerea</i> , <i>Colletotrichum gloeosporioides</i>	45.00 / strain / sample 45.00 / strain / sample
	33	STRAIN PURCHASE a. List of Strain [Attachment 1]	200.00 / strain
ADVANCED DRYING	FOOD TECHNOLOGY 2 LABORATORY		
	34	FREEZE DRYING (Capacity: 60 L) a. Solid (24 hours) b. Liquid (36 hours)	1,600.00 / batch 1,800.00 / batch
	35	VACUUM TRAY DRYING (Capacity: 100 L) (36 hours)	1,100.00 / batch
HALAL	HALAL INCUBATOR SATELLITE LABORATORY		
	36	HALAL CERTIFICATION INCUBATOR TRAINING PROGRAM	15,000.00 / year
	37	HALAL PREMISE CERTIFICATION CONSULTATION	5,000.00 / product

LIST OF STRAINS IN ICA MICROBIAL CULTURE COLLECTION

No.	Accession number	Strain name	Origin	Microbial classification
1.	IMCC 1001	<i>Bacillus</i> sp. (<i>B. velezensis</i> -like)	Vinegar	Bacteria
2.	IMCC 1002	<i>Stenotrophomonas</i> sp. (<i>S. pavanii</i> -like)	Pineapple	Bacteria
3.	IMCC 1003	<i>Curtobacterium</i> sp. (<i>C. herbarum</i> -like)	Pineapple	Bacteria
4.	IMCC 1004	<i>Lactobacillus</i> sp. (<i>L. paracasei</i> -like)	Vinegar	Bacteria
5.	IMCC 1005	<i>Streptomyces</i> sp. (<i>S. xylaniticus</i> -like)	Pineapple	Bacteria
6.	IMCC 1006	<i>Acetobacter</i> sp. (<i>A. lovaniensis</i> -like)	Pineapple	Bacteria
7.	IMCC 1007	<i>Burkholderia</i> sp. (<i>B. cepacia</i> -like)	Rhizospheric soil of maize	Bacteria
8.	IMCC 1008	<i>Cupriavidus</i> sp. (<i>C. taiwanensis</i> -like)	Rhizospheric soil of maize	Bacteria
9.	IMCC 1009	<i>Sinomonas</i> sp. (<i>S. antrocyanea</i> -like)	Rhizospheric soil of maize	Bacteria
10.	IMCC 1010	<i>Serratia</i> sp. (<i>S. marcescens</i> -like)	Rhizospheric soil of maize	Bacteria
11.	IMCC1011	<i>Chitinophaga</i> sp. (<i>C. terrae</i> -like)	Rhizospheric soil of maize	Bacteria
12.	IMCC 2001	<i>Pleurotus sajor caju</i>	Mushroom	Fungus
13.	IMCC 2002	<i>Pleurotus ostreatus</i>	Mushroom	Fungus
14.	IMCC 3001	<i>Saccharomyces cerevisiae</i>	Pineapple	Yeast