สถาบันโภชนาการ มหาวิทยาลัยมหิดล

ค่าบริการทดสอบ
Price list

1. NUTRITIVE VALUES

Analysis	Test Methods	Test duration (days)	Service cost (Baht)
1.1 Common nutrients			
Energy/Carbohydrate (include results of protein, fat, ash, moisture and) dietary fiber)	By calculation	14	6,300
Energy/Carbohydrate (include results of protein, fat, ash and moisture)	By calculation	14	2,300
Energy (bomb)	ASTM Method D 2015-77	10	1,200
Protein/Nitrogen	AOAC (2019) 991.20, 992.23	6	600
Real protein	In-house method based on AOAC (2019) 991.20	3	800
Fat/Total lipid	AOAC (2019) 932.06, 989.05, 922.06	4	800
Ash	AOAC (2019) 930.30, 945.46	5	500
Moisture	AOAC (2019) 927.05, 925.10, 925.45	3	400
Total solid	AOAC (2019) 990.19	3	400
Dietary fiber	AOAC (2019) 985.29	15	4,000
Insoluble dietary fiber	AOAC (2019) 991.42	15	4,000
Soluble dietary fiber	AOAC (2019) 993.19	15	2,000
Total sugar	AOAC (2019) 980.13	6	2,000
Glucose[1]	AOAC (2019) 980.13	7	3,000
Fructose[1]	AOAC (2019) 980.13	6	3,000
Sucrose[1]	AOAC (2019) 980.13	6	3,000
Lactose[1]	AOAC (2019) 980.13	6	3,000
Sorbitol[1]	AOAC (2019) 980.13	6	3,000
Maltose[1]	AOAC (2019) 980.13	6	3,000
Glucose, Fructose, Sucrose	AOAC (2019) 980.13	6	3,000
Isomaltulose (Palatinose)	AOAC (2019) 980.13	6	3,000
Milk solid	AOAC (2019) 952.08, 982.14	9	2,400
Milk solid not fat	AOAC (2019) 952.08, 982.14, 922.32, 948.15, 945.16	9	3,200
Total solid not fat	AOAC (2019) 990.21	5	1,200

[1]*Additional sugar in the same sample costs 1,000 baht each*

Analysis	Test Methods	Test duration (days)	Service cost (Baht)
1.2 Vitamins			
Vitamin A	In-house method based on Kangsadalampai K., and Sungpuag P. 1984	5	2,000
β-carotene	In-house method based on Speek AJ, et al. Food Chem. 1986	5	2,000
Vitamin D (D3)	AOAC (2019) 995.05	7	4,000
Vitamin D (D3+D2)	AOAC (2019) 995.05	7	7,000
Vitamin E	In-house method based on Speek AJ, et al. J Food Sci 1985	5	2,000
Vitamin C	Odriozola-Serrano L, et al. Food Chem. 2007	7	1,500
Thiamin (B_1)	In-house method based on AOAC (2019) 942.23	7	1,500
Riboflavin (B_2)	In-house method based on AOAC (2019) 970.65	7	1,300
Niacin (B_3)	In house method based on AOAC (2019) 961.14	10	2,000
Vitamin B_6	In house method based on AOAC (2019) 961.15	12	3,000
Vitamin B_{12}	In house method based on AOAC (2019) 960.46 and 952.20	12	2,800
Folate (B_9)	In house method based on AOAC (2019) 960.46 and 2004.05	12	3,500
Pantothenic (B_5)	In house method based on AOAC (2019) 960.46 and 945.74	12	2,500
Biotin (B_7)	In house method based on AOAC (1980) Microbiological method, 13th Ed., Ch 43.150-43.158 pp. 763- 764.	12	2,200
Trypsin inhibitor activity	AACC (1999) Method 22-40	10	2,800

Analysis	Methods	Test duration (days)	Service cost (Baht)
1.3 Minerals			
Calcium[2]	AOAC (2019) 985.35	7	600
Sodium[2]	AOAC (2019) 985.35	7	500
Potassium[2]	AOAC (2019) 985.35	7	500
Chloride[2]	In house method based on AOAC (2019) AOAC (2019) 971.27	10	800
Magnesium[2]	AOAC (2019) 985.35	7	700
Iron[2]	AOAC (2019) 985.35	7	700
Zinc[2]	AOAC (2019) 985.35	7	700
Copper[2]	AOAC (2019) 985.35	7	700

[2]Additional mineral in the same sample costs 500 baht for dry ashing or wet digestion

1.4 Fatty acids			
Fatty acids (profile)	In-house method based on AOAC (2019) 963.22, 969.33	7	3,000
Fatty acids (profile and quantitative)	In-house method based on AOAC (2019) 963.22, 969.33	7	3,800
Trans Fatty acid	In-house method based on AOAC (2019) 963.22, 969.33	7	3,500

1.5 Others			
Cholesterol	AOAC (2019) 994.10	7	2,400
Salt (sodium+chloride)	AOAC (2019) 985.35, In house method based on AOAC (2019) AOAC (2019) 971.27	14	1,800
Fructans (Inulin + Fructo-oligosaccharides)	In-house method based on AOAC (2019) 997.08 and J. AOAC Inter, 2000	7	8,000
Fructo-oligosaccharides (FOS)	In-house method based on AOAC (2019) 997.08 and J. AOAC Inter, 2000	7	9,000
Antioxidant Activity (ORAC) (Food)	Ou B, et al. J Agric Food Chem, 2001	7	3,500
Antioxidant Activity (ORAC) (Oil)	Prior R.L. et al. J Agric Food Chem, 2003	7	9,000
Antioxidant Activity (FRAP)	Benzie IF & Strain JJ. Anal Biochem 1996	7	2,500
Antioxidant Activity (DPPH)	Katsuke T. J Agric Food Chem 2004	7	2,500
Total Polyphenol	Lu J, et al. J Agric Food Chem 2007	7	2,000
Co-Enzyme Q10	Kettawan A, et al., J Clin Biochem Nutr. 2007	7	3,500
Freeze dry (ต่อน้ำหนักสด)	Freeze dry system	7	2,000
Iodine in salt (mg/kg)	UNICEF, ICCIDD, PAMM, WHO, MI. 1995	10	400
Iodine in food	ICP-MS	10	3,500
Deuterium by Isotope Ratio Mass Spectrometry (IRMS) (Urine / Saliva)	IAEA Human Health Series No. 13 (2011)	7	3,000
Deuterium by Fourier-transform infrared spectroscopy (FTIR) (For saliva only)	IAEA Human Health Series No. 7 (2010)	7	1,000
Deuterium (^{2}H) & Oxygen (^{18}O) by IRMS	IAEA human health series, No. 3 (2009)	7	5,000
Calculation of Total body water (TBW)			200
Calculation of Breast milk intake (BM)			200
Calculation of Total Energy expenditure (TEE)			400
Calculation of Uncertainty			300

Note: *- This price list can be changed without prior notification*

สถาบันโภชนาการ มหาวิทยาลัยมหิดล
ถนนพุทธมณฑล สาย 4 ต.ศาลายา อำเภอพุทธมณฑล จ.นครปฐม 73170
โทรศัพท์ 02 441 9346, 02 800 2380 ต่อ 406, 418.
โทรสาร 02-441 9344

Institute of Nutrition, Mahidol University at Salaya
Putthamonthon IV Rd., Nakhon Pathom 73170, Thailand.
Tel. 02 441 9346, 02 800 2380 ext. 406, 418. Fax. 02 441 9344
E-mail: wimolrat.mee@mahidol.ac.th, arunrat.pot@mahidol.edu, Sujinthra.Som@mahidol.ac.th