

Laboratory for investigation of natural resources of pharmacologically and biologically active compounds Deartment for Chemistry, Biochemistry and Environmental Protection Dearth of Sciences University of New Sciences

LABORATORY ANALYSIS AND PRICE LIST FOR 2018

Type of analyse	Price fixed part without VAT (EUR)	Price per sample without VAT (EUR)	Notes
Spectrophotometric methods			
Free radical scavenging ability (DPPH [•] assay)		75	
Free radical scavenging ability ([•] NO assay)		75	
Free radical scavenging ability (HO [•] assay)		75	
Free radical scavenging ability $(O_2^{\bullet-} assay)$		75	
Reducing capacity (FRAP assay)	30	50	
Antioxidant capacity (lipid peroxidation inhibition)		75	
Acetylcholinesterase inhibition ability		75	
Determination of total flavonoids content (Al ³⁺ assay)	30	50	
Determination of total phenolics content (Folin–Ciocalteu assay)	30	50	
Determination of total anthraquinones content (KOH assay)	30	50	for 1,8–substituted derivatives
Determination of total condensed tannins content	30	50	
(proanthocyanidins)	20	50	
Determination of total monomeric anthocyanins content	30 30	50	
Determination of nitrite content in meat and meat products		50	
Determination of total protein content (by Lowry method)	30		
Determination of total azulenes content	30	50	
Quantification of ascorbic acid content (by Ellman method)	30	50	
Quantification of inulin content	30	50	
Recording the UV/VIS spectrum		20	
Quantification of plant phenols	30	50	per compound, non-selective method
Development of a new spectrophotometric method		100	approximate price, the actual price depends on the nature of the analyte and the sample
TLC	<u>.</u>		
Confirmation of the presence of the compound (comparison with standard)	10	20	following samples 10 EUR
GC-MS			,
Determination of methanol in spirits	100	30	
Recording of essential oils chromatograms		30	
Interpretation of essential oils chromatograms (qualitative and		450	
semi–quantitative analysis)		150	
Quantification of specific component in essential oil	50	30	for number of samples analyzed at the same time, price per compound per sample is 15 EUR
Headspace GC–MS analysis of volatile compounds in plant		120	
material (qualitative analysis)		120	
Headspace GC–MS analysis of residual solvents in oils, cosmetic and pharmaceutical formulation	50	50	per solvent
LC-UV/VIS			
Quantification of compound (e.g. plant phenolics)	40	50	per compound
Quantification of food preservatives (e.g. benzoate, sorbate)	40	50	per compound
Quantification of caffeine in soft drinks	40	50	
Development of quantitative LC–UV/VIS method		100	 minimum price – the actual price depends on the nature of the sample and the analyte validation is not included in the price purchase price of standard is not included in the price

LAFIB - Laboratory for investigation of natural resources of pharmacologically and biologically active compounds Departman for Chemistry, Biochemistry and Environmental Protection | PMF | UNS Trg Dositeja Obradovića 3, 21101 Novi Sad, Serbia e-mail: lafib@dh.uns.ac.rs | telephone: +381 21 4852757 | fax: +381 21 454065



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Price Price per fixed part sample Type of analyze Notes without VAT without VAT (EUR) (EUR) LC-MS, LC-MS/MS per compound Quantification of compound (e.g. plant phenolics or other - for number of samples analyzed at the 40 30 secondary metabolites*) same time, price per compound per sample is 15 EUR per compound Quantification of phytoestrogens (e.g. isoflavonoids - genistein, - for number of samples analyzed at the 40 30 daidzein. formononetin) same time, price per compound per sample is 15 EUR by comparison of retention, UV/VIS, MS Compound presence confirmation (comparison with standard) 50 and MSⁿ spectra Qualitative analysis LC–UV/VIS–MS/MS – targeted (partially per sample 300 known composition, basic MS interpretation) - following similar samples 50 EUR – per compound - a.g. herbal extracts, pesticides Qualitative analysis HPLC–UV/VIS–MS/MS – completely 150 50-150 degradation products, drug metabolites... unknown sample composition (detailed MSⁿ interpretation) - price depends on the level of semple complexity Recording of ESI–MS, MS² and pseudo–MSⁿ spectra of neat 30 50 per compound compounds - per compound Recording of ESI–MS, MS² and pseudo–MSⁿ spectra of 30 50-200 - price depends on the level of mixture compounds in mixture complexity – minimum price per compound – the actual price depends on the nature of the sample and the analyte Development of quantitative LC-MS or LC-MS/MS method 150 - validation is not included in the price purchase price of standard is not included in the price Detection of illegal substances (tetrahydrocannabinol, 100 per compound morphine, heroin, cocaine) in powder sample or plant material Specific biochemical analyzes Anti-inflammatory activity - ex vivo eicosanoids biosynthesis – per sample inhibition assay (12–HETE, 12–HHT, TXB_2 , PGE_2 , $PGF_{2\alpha}$) in human 100 300 - minimal number of samples is 4 cells Extraction of total RNA 40 Quantification of RNA/DNA concentration 30 cDNA synthesis 30 – per gene Quantification of gene expression (qPCR) 35 - purchase price of primers is not included in the price Assessment of oxidative stress parameters in tissue (e.g. level of – per parameter, per sample lipid peroxidation, catalase, glutathione peroxidase, glutathione - for number of samples analyzed at the 30 reductase, glutathione S-transferasea and superoxide dismutase same time, price per parameter, per enzyme activities, etc.) sample is 15 EUR Determination of ALT and ASAT activities 20 – per enzyme, per sample Cell culture – per cell culture - maintainance for 30 days Maintenance of cell culture 350 - purchase price of cell culture, cell culture medium and components is not included in the price

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Price Price per fixed part sample Type of analyze Notes without VAT without VAT (EUR) (EUR) Titration 50 Determination of reducing sugars (according to Bertrand) Determination of acidity or alkalinity of liquid food 10 Determination of peroxide value of fats and oils 20 Determination of chloride (NaCl) 10 Determination of ascorbic acid 20 Other analyzes Determination of total fat (Soxhlet extraction) 40 Determination of moisture content (gravimetric) 20 Determination of pH 5 Sample preparation approximate price, the actual price Extraction (Soxhlet) 30 depends on the quantity of the sample and type of the solvent approximate price, the actual price Extraction (maceration) 10 depends on the quantity of the sample and type of the solvent Extraction of secondary metabolites from oil 30 for 3 extractions Isolation of essential oils 30 (hydrodistillation in a Clevenger-type apparatus) Fractionation of plant extracts (liquid-liquid extraction) 20 per fraction (solvent) approximate price, the actual price depends on the type and quantity of the Evaporation under reduced pressure 10 sample Isolation of sample components by semi-preparative liquid price depends on the type and quantity of chromatography technique the sample and number of components Tissue homogenate preparation 5 Other** Basic report on the analysis (results) 5 Extended report on the analysis (method, results, appendices) 20 Report on the analysis, adapted for scientific paper 40 Report on the qualitative LC-MS/MS price depends on the sample composition (with interpretation of the spectra) Report on qualitative LC–MS/MS analysis price depends on the sample composition (with the interpretation of spectra), adjusted for scientific paper price depends on the type of training and Training of individuals in the domain of LAFIB expertise training period price depends on the type, complexity 150-400 Consultation for writing scientific paper in Serbian and English and length of paper 35 Consultation duration 45 min

plant phenolics that are quantified are: *p*-hydroxybenzoic acid, cinnamic acid, protocatechuic acid, 2,5-dihydroxybenzoic acid, umbelliferone, *p*coumaric acid, *o*-coumaric acid, vanillic acid, gallic acid, esculetin, caffeic acid, quinic acid, scopoletin, ferulic acid, syringic acid, 3,4dimethoxycinnamic acid, sinapic acid, daidzein,, apigenin, genistein, baicalein, naringenin, luteolin, kaempferol, catechin, epicatechin, chrysoeriol, quercetin, isorhamnetin, myricetin, 5-O-caffeoylquinic acid, matairesinol, secoisolariciresinol, apigenin 7-O–glucoside, vitexin, baicalin, kaempferol 3-*O*-glucoside, luteolin 7-O–glucoside, quercitrin, epigallocatechin gallate, hyperoside, quercetin 3-O-glucoside, amentoflavone, apiin, rutin, hydroxyphenylacetic acid, isoscopoletin, resveratrol, alizarin, dantron, chrysin, pinocembrin, liquiritigenin, isoliquiritigenin, abscisic acid, formononetin, aloe-emodin, emodin, pinostrobin, galangin, rhein, diosmetin, hesperetin, morin, ellagic acid, rhamnetin, ursolic acid, glycyrrhizic acid, naringin, glycyrrhizin, rosmarinic acid.

** For all analyses that are not listed, there is possibility for their performance according to client needs