

Metabolite Profiling project submission date: (DD.MM.JJ) project ID¹⁾:

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Please fill out or tick the shaded fields, additional information is attached

Name/ Contact

Project

This analysis is part of

the funded project: the planned project: the collaboration:
(title:)

(reference:)

(funding:)

The analysis is required for a publication

in revision: for submission: planned:
(title:)

(reference:)

The analysis is a repetition /follow up of a previous analysis with us

(title:)

Experimental description (short summary or abstract)

Goals of this metabolite analysis:

Design details

organism:

tissue/ organ/ cells:

Treatments of samples:

Metabolite measurements:

routine protocol

(please select metabolite names from the attached list or the metabolite group codes eg. PMET, AS, ASC, for the entire metabolic group)

metabolites or codes:

new protocol

(please provide names of metabolites and reference for determination)

metabolites

reference:

Sample information

Sample treatment (eg. Fresh or Dry Weight FW/ DW, liquid N2, -80°C, dry-ice, freeze dried etc.)

Number of total samples (including 4 replicates each):

Available material in mg FW or DW:

Prior to sample shipping a final excel list assigning data on sample/replicate names/numbers, treatments, sample weights, container labels, etc. is required

Timeframe

Proposal of

-preferred measurement date:

(DD.MM.JJ)

-latest timepoint of measurement:

(DD.MM.JJ)

(Signature)

Project accepted for measurement¹⁾ : yes no

Proposed delivery date¹⁾:

(DD.MM.JJ)

¹⁾ assigned by AB Bioanalytic

Methods	Metabolites List		
Phosph. Metabolites and Carbonic acids PMET Perchloric acid extr. ICS3000 ESI/MS/MS QTrap Ion chromatography AS11 Ion exchange	3PG Cit Icit Mal Ru15P2 Pyr UDPglc PEP ADP aKG	Succ Fum Shik G6P F6P F16BP ADPglc G16BP AMP E4P	PPi G1P UDP S6P T6P M6P ATP DHAP UDPNAG
Aminoacids AS ETOH /ACQ Derivat. LC Summit Fluorescence detect. RP Luna C18	Asp Glu Asn Ser Gln Gly	His Thr Arg Ala Pro Tyr	Val Ile Lys Leu Phe
Antioxidants ASC SUSA UV/VIS Uvikon TOC MEOH , LC Summit RP Luna C18 AOX-GSH HCl Summit RP Luna C18	Ascorbate red Asc	alpha Tocopherol gamma Toc delta Toc	GSH Ox GSH Cys CysOx gGC gGCOx
Plant Pigments PIG MEOH/NaCl/CHCl3 PDA 3D LC Ultimate RP Polar advantage C16	cis-Neoxanthin Violaxanthin Antheraxanthin Lutein	Zeaxanthin beta Carotin Chl b Chl a	alpha Carotin 410,433,461 Transneoxanthin 390,410,434
Phytohormones HORM 1-Proponol/CHCl3 ICS3000 ESI/MS/MS QTrap RP-Luna C18	Zeatin Zeatinribosid N6A ILA	IAA ABA JA SA	(GA4) (GA7)
N15 labeled Aminoacid N15AS ETOH LC ICS3000 ESI/MS/MS QTrap RP-Organicacids C18 recorded mass transitions _H: rec. transition with N15 label	LYS_148_130 LYS_148_130_H LYS_148_131_H ORN_133_116 ORN_134_116_H ORN_134_117_H HIS_156_110 HIS_157_111_H HIS_156_83 HIS_157_84_H ARG_175_116 ARG_176_117_H ARG_176_116_H ARG_177_116_H ARG_178_116_H ARG_179_117_H ORN_116_70 SER_106_60 SER_107_61_H	ASN_133_116 ASN_134_116_H ASN_134_117_H ASN_135_116_H ASN_133_87 ASN_134_88_H ASN_135_89_H ALA_90_44 ALA_91_45_H THR_120_74 THR_121_75_H GLN_147_130 GLN_148_130_H GLN_148_131_H GLN_149_131_H MET_150_104 MET_151_105_H ILE_132_86 ILE_133_87_H	LEU_132_86 LEU_133_87_H TYR_182_136 TYR_183_137_H PHE_120_74_H PHE_166_120 PHE_167_121_H TRP_205_188 TRP_206_188_H CITL_176_159 CITL_177_159_H CYS_122_59 CYS_123_59_H GLU_148_102 GLU_149_103_H PRO_116_70 PRO_117_71_H VAL_118_72 VAL_119_73_H
Cellwall sugars GLUCCW H2SO4 ICS3000 Amperometry Ion chrom. PA20	Mannose Fucose Rhamnose	Arabinose Galactose Xylose	Glucose Glucuronic acid Galacturonic acid
Fatty acids FS MEOH /H2SO4 GCMS of FAMES/FAMEWAX	Palmitate C16:0 Palmitoleate C16:1 Sterate C18:0	Oleate C18:1 Linoleate C18:2 Linolenate C18:3	
Cholins CHOL ESI/MSMS	Cholin	Acetylcholin	
under development	Phospholipids Fatty acids from	F26BP Maltose Maltooligo- saccharides	longchain sugars Fatty acids from Cutin

Additional information

In order to schedule and organize a metabolic profiling experiment we need sufficient information about your project. We therefore must ask you to submit experimental details and metadata, that allow us to feedback on the experimental design, required for the validity of the analysis, the standards of scientific journals or eg. a prioritization of the analysis within our platform.

Running Project and funding: What is the funded background project of this measurement

Priority: For scheduling we must know the priority eg. is it an urgent referee request. If available please tell a reference.

Repetition/follow up of a previous measurement (title) Did we measure similarly for a previous project of you. ?

Experimental description: Short description of the design of your overall study. The abstract from the associated publication may be suitable. Include as much text as necessary.

Goal of the metabolite analysis: Describe specific goals of the metabolite analysis if not clear from above eg. proof if plant stress is reflected in antioxidants level, starch level in utilization mutant, certain metabolite levels changed, detection of principal components etc.. Name eg. relevant genes, mutations, controls, phenotypes, treatments, timepoints etc. Indicate eg. genotypes /ecotypes, controls, randomization at cultivation, growth-, treatment-, timepoints and relevant parameters.

Metabolites/ metabolites groups to be assayed

We measure individual metabolites with methods optimized for the maximal recovery within several metabolite groups eg. aminoacids or soluble sugars. Each group is addressed with a CODE name (eg. PMET or AS) and has it's individual procedure for extraction and analysis. Use the attached **metabolites list** for an overview of the metabolites we gained experience so far and short info on our methods. The codes for groups will be used throughout texts and evaluations. Alternatively pic individual metabolites, if not all metabolites of a group should be evaluated from the metabolites list

Feedback: With your information we will give you a **proposal on your experimental design** such that the measurement is feasible eg. sample treatment, required number of replicates, material in milligram required or shipping recommendations and we will consider your and our time frame and priorities.

Sample information: According to the project design, we must have detailed information of your samples such as sample names, weights, or labels of container etc. You must submit an excellist ahead of sending samples. This form contains all the required information on your samples as follows:

Sample number, Sample container label, Sample container type, Sample Titel, Organism, Tissue/Cells, Genotyp, Treatments, Timepoints, Mutation effects, Extrem Metabolites, Phenotype

Treatment from harvest to shipping, Extracts to prep, Metabolic Groups to measure, Fresh Weight or Dry Weight, Minimum Freshweight/ Dryweight, mg shipped, μ l shipped if you do the extract, solvent composition, time sensitive samples, evaluation required (eg. univariate/ multivariate), shipping date