

A stylized white chromatogram with several sharp peaks of varying heights, set against a dark teal background with faint molecular network patterns.

High-Precision Metabolomics

since 2003

BEVITAL

From Scientists For Scientists.

www.bevital.no

During the last 20 years Bevital has provided novel, high-quality metabolomics services translating metabolomics data from the laboratory to real-world settings, helping researchers to understand how metabolism impacts health and quality of life.

Bevital's scientists and technicians have specialized in targeted metabolomics and the group has a strong track record of providing high precision and reliable metabolomics data for research investigating nutrition, cardiovascular diseases, cancer and neurodegenerative conditions. Our analytical repertoire has been established carefully and strategically, targeting established biomarkers, specific metabolites, classes and important metabolic pathways related to processes ranging from energy homeostasis and cellular function, to inflammation, immune activation and the gut microbiome.

Bevital's scientific contribution to many international projects has demonstrated that assay precision, accuracy and reliability are crucial for achieving project outcomes. All our methods are developed using authentic isotope labelled internal standards for each analyte, providing absolute quantification of the highest quality on the market. Our targeted metabolomics panels have been designed to be analytically and biologically complementary and are established across dedicated GC- and LC-MS/MS platforms. Our approach allows quantification of diverse, but related classes of both high and low abundance metabolites.

We offer different analytical packages to meet changing research needs and demands. Ready-to-run panels allow customers to choose between pre-designed solutions at lower costs. Researchers requiring greater flexibility can mix different metabolites from Bevitals repertoire and compose individual panels specific to the demands of their project. Metabolites of interest not yet included may be incorporated into existing assays or established as customized targeted analyses.

Finally, Bevital offers full academic project support from writing of grant applications and study planning, to sample analysis, data interpretation and critical review of manuscripts.

Whether you are planning to run targeted metabolomics or looking for opportunities to validate your data from untargeted approaches, you should consider Bevital for your analyses.

Adrian McCann
Research Director, Bevital

Ready-to-Run

Cardiometabolic

65 biomarkers from 200ul sample volume

Amino acids

Alanine, Arginine, Asparagine, Aspartic acid, Glutamic acid, Glutamine, Glycine, Histidine, Isoleucine, Kynurenine, Leucine, Lysine, Methionine, Ornithine, Phenylalanine, Proline, Sarcosine, Serine, Threonine, Total cysteine, Tryptophan, Tyrosine, Valine

Amino acid catabolites

2-Hydroxybutyrate, 3-Hydroxyisobutyrate, Amino adipic acid, Phenylacetylglutamine, α -Hydroxyglutaric acid, β -Alanine, β -Aminoisobutyrate, β -Hydroxy β -methylbutyric acid

Acylcarnitines

BB, C0, C2, C3, C3-DC, C4, C4-OH, C4-DC, C5, C5-DC, C5:1, C6, C8, C10, C12, C14, C14-OH, C16, C16-OH, C18, C18-OH, C18:1, C18:2

TCA metabolites

Citrate, Fumarate, Isocitrate, Lactate, Malate, Pyruvate, α -Ketoglutarate

Ketone bodies

3-Hydroxybutyrate, Acetoacetate

AGEs

Carboxyethyllysine, Carboxymethyllysine

Ready-to-Run

Inflammation & Immune Activation

19 biomarkers from 150ul sample volume

Kynurenines

3-hydroxykynurenine, 3-hydroxyanthranilic acid, Anthranilic acid, Kynurenine, Kynurenic acid, Nicotinic acid, Nicotinamide, NI-methylnicotinamide, Picolinic acid, Quinaldic acid, Quinolinic acid, Xanthurenic acid

Ratio-derived metabolites

Kynurenine/Tryptophan ratio, PAr index (PLP, PL, PA)

Neopterin

Proteins

C-Reactive protein, Calprotectin, Serum Amyloid A and their proteoforms

Ready-to-Run

Nutrition Status & Lifestyle

41 biomarkers from 300ul sample volume

B-vitamins, functional markers, and methyl donors

4-Pyridoxic acid, Betaine, Choline, Cobalamin, Flavin mononucleotide, Folate, Methylmalonic acid, NI-methylnicotinamide, Nicotinamide, Nicotinic acid, Pyridoxal, Pyridoxal 5-phosphate, Pyridoxine, Riboflavin, Thiamine, Thiamine monophosphate, Total homocysteine

Fat-soluble vitamins

25-hydroxy vitamin D2, 25-hydroxy vitamin D3, α -Tocopherol (Vit. E), All-trans retinol (Vit. A), Phylloquinone (Vit. K1), γ -Tocopherol (Vit. E)

Essential amino acids

Histidine, Isoleucine, Leucine, Lysine, Methionine, Phenylalanine, Threonine, Tryptophan, Valine

Meat & fish intake

1-Methylhistidine, 3-Methylhistidine, Creatine, Creatinine, TMAO, β -Alanine

Tobacco use & coffee intake

Cotinine, Trans-3-hydroxycotinine, Trigonelline

Ready-to-Run

Microbiome

20 biomarkers from 250ul sample volume

Short-chain fatty acids (SCFAs)

Acetate, Butyrate, Formate, Isobutyrate, Isovalerate, Propionate, Valerate, α -Methylbutyrate

Indoles

3-Indoxyl sulfate, Imidazole propionate, Indole-3-acetamide, Indole-3-acetate, Indole-3-aldehyde, Indole-3-lactate, Indole-3-propionate

Choline oxidation

Choline, Betaine, DMG, TMAO

Amino acid derived metabolites

Phenylacetylglutamine

Mix-and-Match

Full Flexibility

Bevital offers to combine any biomarker of the analytical repertoire to give our customers the flexibility required for their projects.

Vitamins & lifestyle

B-vitamins, fat-soluble vitamins, folate & cobalamin, meat & fish intake, tobacco & coffee

Metabolites & pathways

Amino acids & metabolites, acylcarnitines, tryptophan metabolites, microbiota derived, one-carbon metabolism, tricarboxylic acid cycle, choline oxidation, urea cycle, AGEs, transsulfuration, and others

Pathologies

Diabetes, inflammation, onco-metabolites, neuroactive metabolites, endothelial function, renal function, uremic toxins, ketone bodies, and liver disease

For more information about actual biomarkers offered, please visit our website at www.bevital.no or scan the QR code.



Not found what you are looking for?

Customized Analyses

Biomarkers not listed in Bevital's analytical repertoire may be included into existing panels and be analysed by customized assays. Contact our experts at post@bevital.no to discuss your needs and the strategies to realize your project. Project evaluation requires information regarding:

- Classes and types of compounds
- Number of samples
- Sample matrix
- Time frame
- Published analytical methods

Analyte

1-Methylhistidine
2-Aminoadipic acid
2-Hydroxybutyrate
3-Hydroxyanthranilic acid
3-Hydroxybutyrate
3-Hydroxyisobutyrate
3-Hydroxykynurenine
3-Indoxyl sulfate
3-Methylhistidine
4-Alpha-hydroxy-5-methyl-THF
4-Pyridoxic acid
5-Formyl-tetrahydrofolate
5-Methyl-tetrahydrofolate
25-hydroxy vitamin D2
25-hydroxy vitamin D3
Acetamidobenzoylglutamate
Acetate
Acetoacetate
Acetylcarnitine
Alanine
All-trans retinol
Alpha-tocopherol
Anthrnilic acid
Arginine
Asparagine
Aspartic acid
Asymmetric dimethylarginine
Betaine
Butyrate
Butyrobetaine
Butyrylcarnitine
C-reactive protein
Calprotectin and variants
Carboxymethyllysine
Carboxymethyllysine
Carnitine, total
Carnitine
Choline
Citrate
Citrulline
Cotinine
Creatine
Creatinine
Cystathionine
Cystatin C and variants
Decanoylcarnitine
Dimethylglycine
Dodecanoylcarnitine
Erythrocyte folate
Flavin mononucleotide
Folic acid
Formate
Fumarate
Gamma-tocopherol
Glutamic acid
Glutamine
Glutaryl carnitine
Glycine
HbA1c
Hexadecanoylcarnitine
Hexanoylcarnitine
Histidine
Hydroxybutyrylcarnitine
Hydroxyoctadecanoylcarnitine
Hydroxytetradecanoylcarnitine
Imidazole propionate
Imidazole propionate
Indole-3-acetaldehyde
Indole-3-acetamide
Indole-3-acetate
Indole-3-lactate
Indole-3-propionate
Isobutyrate
Isocitrate
Isoleucine

Category

Amino acid
Lys metabolite
Alfa hydroxy acid
Trp metabolite
Ketone body
Val metabolite
Trp metabolite
Indole, Trp metabolite
Amino acid
Oxidized folate
B6 vitamer
Folate
Folate
D vitamer
D vitamer
Folate catabolite
Short-chain fatty acid
Ketone body
Acylcarnitine
Hydrophobic amino acid
A vitamer
E vitamer
Trp metabolite
Charged amino acid
Polar amino acid
Charged amino acid
Guanidinated amino acid
Methylated amino acid
Short-chain fatty acid
Quarternary ammonium
Acylcarnitine
Protein
Protein
AGE
AGE
Carnitine
Carnitines
Quarternary ammonium
Tricarboxylic acid
Amino acid
Nicotine metabolite
Alpha amino acid
Alpha amino acid
Thioether
Protein
Acylcarnitine
Methylated amino acid
Acylcarnitine
B-vitamin
B2 vitamer
Folate
Short-chain fatty acid
Dicarboxylic acid
E vitamer
Charged amino acid
Polar amino acid
Acylcarnitine
Hydrophobic amino acid
Protein
Acylcarnitine
Acylcarnitine
Essential amino acid
Acylcarnitine
Acylcarnitine
His metabolite
His metabolite
Indole, Trp metabolite
Indole, Trp metabolite
Indole, Trp metabolite
Indole, Trp metabolite
Indole, Trp metabolite
Indole, Trp metabolite
Short-chain fatty acid
Tricarboxylic acid
Essential BCAA

Analyte

Isovalerate
Isovalerylcarnitine
Kynurenic acid
Kynurenine
Lactate
Leucine
Linoleylcarnitine
Lysine
Malate
Malonylcarnitine
Menaquinone-4
Methionine
Methionine sulfoxide
Methylmalonic acid
Myristoylcarnitine
N1-methylnicotinamide
Neopterin
Nicotinamide
Nicotinic acid
Octanoylcarnitine
Oleoylcarnitine
Ornithine
Palmitoylcarnitine
Para-aminobenzoylglutamate
Phenylacetylglutamine
Phenylalanine
Phylloquinone
Picolinic acid
Proline
Propionate
Propionylcarnitine
Pyridoxal
Pyridoxal 5-phosphate
Pyridoxine
Pyruvate
Quinaldic acid
Quinolinic acid
RBC folate as pABG equivalents
Riboflavin
Sarcosine
Serine
Serum amyloid A and variants
Serum cobalamin
Serum folate
Serum folate as pABG equivalents
Stearoylcarnitine
Succinate
Succinylcarnitine
Symmetric dimethylarginine
Thiamine
Thiamine monophosphate
Threonine
Tiglylcarnitine
Total choline
Total cysteine
Total homocysteine
Trans-3'-hydroxycotinine
Trigonelline
Trimethylamine N-oxide
Trimethyllysine
Tryptophan
Tyrosine
Valerate
Valine
Xanthurenic acid
 α -Hydroxyglutaric acid
 α -Ketoglutaric acid
 α -Methylbutyrate
 β -Alanine
 β -Aminoisobutyrate
 β -Hydroxy β -methylbutyrate

Category

Short-chain fatty acid
Acylcarnitine
Trp metabolite
Trp metabolite
Alpha-Hydroxy acid
Essential BCAA
Acylcarnitine
Essential charged aa.
Alpha-Hydroxy acid
Acylcarnitine
K vitamer
Essential amino acid
Polar amino acid
Carboxylic acid
Acylcarnitine
B3 vitamer
Pteridine
B3 vitamer
B3 vitamer
Acylcarnitine
Acylcarnitine
Charged amino acid
Acylcarnitine
Folate catabolite
n-acyl-alpha amino acid
Essential aromatic aa.
K vitamer
Trp metabolite
Hydrophobic amino acid
Short-chain fatty acid
Acylcarnitine
B6 vitamer
B6 vitamer
B6 vitamer
Alpha-Keto acid
Trp metabolite
Trp metabolite
Folate
B2 vitamer
Methylated amino acid
Polar amino acid
Protein
B-vitamin
B-vitamin
Folate
Acylcarnitine
Dicarboxylic acid
Acylcarnitine
Guanidinated amino acid
B1 vitamer
B1 vitamer
Essential amino acid
Acylcarnitine
Choline esters
Sulfur amino acid
Sulfur amino acid
Nicotine metabolite
Alkaloid
Amine oxide
Methylated amino acid
Essential aromatic aa.
Aromatic amino acid
Short-chain fatty acid
Essential BCAA
Trp metabolite
Alpha hydroxy acid
Keto acid
Short-chain fatty acid
Beta amino acid
Val metabolite
Leu catabolite

Are You Ready for Omics?

Olink® Proteomics

Bevital is a service provider of Olink and offers Target 96&48 panels using Olink's Proximity Extension Assay (PEA) technology for targeted protein biomarker discovery. Our customers have now the opportunity to obtain both metabolomic and proteomic data from the same sample aliquots.

Olink® **Target 96** panels include 92 markers each and provide relative quantification related to a particular disease or biological function. 15 different panels are available.

Cardiometabolic	Immune Response
Cardiovascular II	Neurology
Cardiovascular III	Neuro Exploratory
Inflammation	Organ Damage
Immuno-Oncology	Metabolism
Oncology II	Development
Oncology III	Cell Regulation
Mouse Exploratory	

Olink® **Target 48** panels consist of 45 (43 mouse) cytokines and provide both relative and absolute quantification (pg/ml) from 1µl sample volume.

Olink® **Flex** panels allow to mix 15 to 21 markers from a library of about 200 proteins. Each kit has a capacity of 40 samples and provides both relative and absolute quantification (pg/ml) from 1µl sample volume.

Biogenity

Bevital is a service partner of Biogenity, a Contract Research Organisation specializing in omics research and discovery. Biogenity offers a vast number of different types of data analyses as:

Data cleaning and visualization	AI powered data analysis
Statistical analysis	Peptide and protein annotation
Bioinformatical analysis	

**For questions regarding
Olink and Biogenity services
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