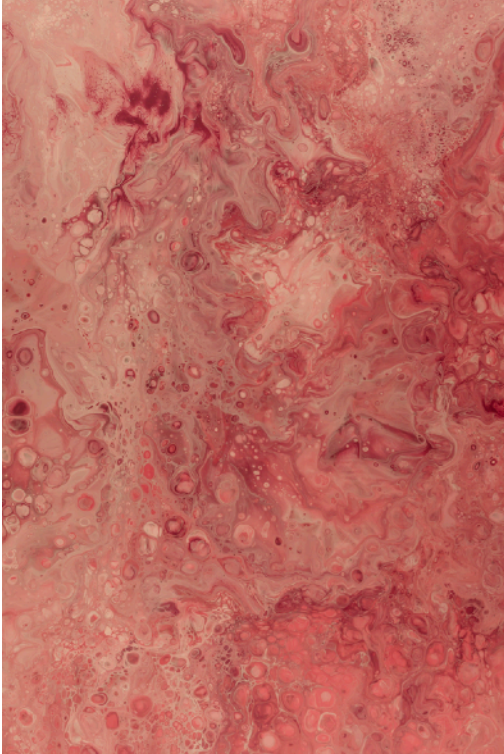


# Serum & plasma



## Shipping requirements

**Specimen:** serum or plasma

**Volume:** 250  $\mu$ L (human); 50  $\mu$ L (animal)

**Conservation:** samples frozen at  $-80^{\circ}\text{C}$

# Metabolomics Services

## Metabolomic Platform

### Advanced technology

Nuclear Magnetic Resonance (NMR) is a valuable tool for studying the metabolic profile of an individual.

### Robust and reproducible results

Results are reported in quantitative values and can be compared with different studies over time.

### Quick analysis

Fully automated technology platform providing rapid analysis of up to 200 samples in one day.

## The added value we offer

### Quality results

Biosfer Teslab is ISO 9001 and ISO 13485 certified and CE marked for characterizing blood lipoproteins.

### Experience

Our research team will help you to interpret your data. We are closely involved in every project.

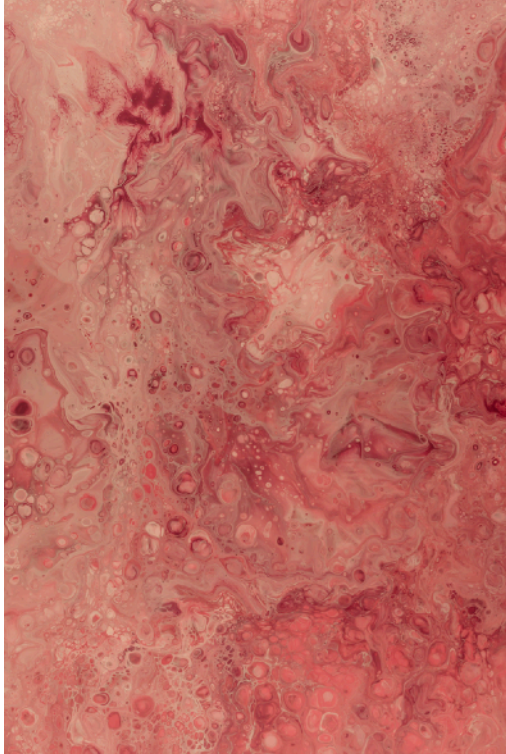
### Data analysis

We have population databases that can be used to compare normality values. We participate in the creation of figures.

## Applications

- Identification of biomarkers
- Epidemiological studies
- Pharmacological studies
- Nutritional studies
- Disease prediction and prevention
- Disease diagnosis
- Clinical trials
- Cardiovascular risk assessment

# Serum & plasma



## Shipping requirements

**Specimen:** serum or plasma

**Volume:** 250 µL (human); 50 µL (animal)

**Conservation:** samples frozen at -80°C

## Lipoproteins

### Cholesterol

Total cholesterol  
VLDL cholesterol  
IDL cholesterol  
LDL cholesterol  
HDL cholesterol  
Remnant cholesterol  
Non-HDL cholesterol

### Triglycerides

Total triglycerides  
VLDL triglycerides  
IDL triglycerides  
LDL triglycerides  
HDL triglycerides

### VLDL lipoprotein particle number

Large VLDL particle number  
Medium VLDL particle number  
Small VLDL particle number

### LDL lipoprotein particle number

Large LDL particle number  
Medium LDL particle number  
Small LDL particle number

### HDL lipoprotein particle number

Large HDL particle number  
Medium HDL particle number  
Small HDL particle number

### Particle size

VLDL size  
LDL size  
HDL size

## Glycoproteins

### Inflammation

NMR signal Glyc-A  
NMR signal Glyc-B  
NMR signal Glyc-F  
Ratio H/W Glyc-A  
Ratio H/W Glyc-A

## Low molecular weight metabolites

### Aminoacids

Alanine  
Glutamate  
Glutamine  
Glycine  
Histidine  
Isoleucine  
Leucine  
Proline  
Threonine  
Tyrosine  
Valine

### Glucose metabolism

Glucose  
Glycerol  
Lactate  
Pyruvate

### Renal function

Creatine  
Creatinine

### Ketone bodies

Acetate  
Acetone  
3-Hydroxyisobutyrate

## Lipids

### Fatty acids and saturation

Arachidonic acid +  
Eicosapentaenoic acid  
(ARA+EPA)  
Docosahexaenoic acid (DHA)  
Linoleic acid (LA)  
Polyunsaturated fatty acids  
(PUFAs)  
Saturated fatty acids (SFAs)  
 $\omega$ -3 fatty acids  
 $\omega$ -6 +  $\omega$ -7 fatty acids  
 $\omega$ -9 fatty acids

### Cholesterol

Esterified cholesterol  
Free cholesterol  
Total cholesterol

### Glycerides & phospholipids

Lysophosphatidylcholine (LPC)  
Phosphatidylcholine (PC)  
Phosphoglycerides  
Sphingomyelins (SM)