



1. BLOOD CHEMISTRY

Primary screen plasma chemistry:

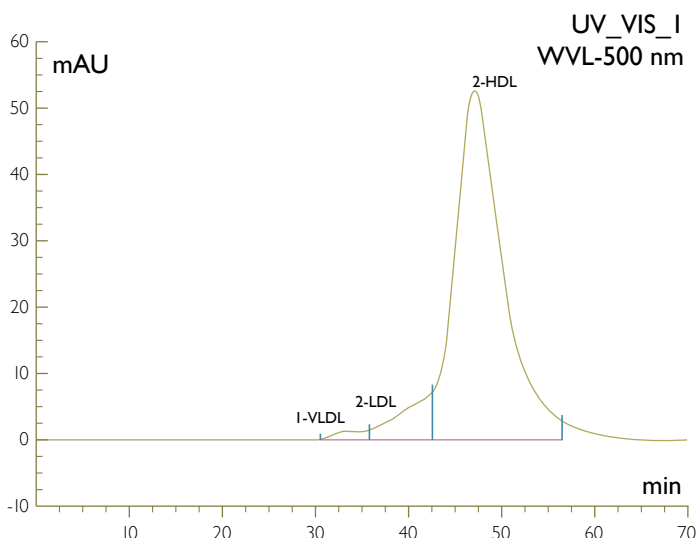
- Ions and metabolites: Sodium, Potassium, Chloride, glucose, urea, creatinin, uric acid, total proteins, albumin, calcium, inorganic phosphorus, iron, total cholesterol, triglycerides.
- Enzymatic activities: Alpha-amylase, aspartate amino transaminase (AST), alanine amino transaminase (ALT), creatine kinase (CK), alkaline phosphatase (ALP), lactate dehydrogenase (LDH).

Other parameters:

Ferritin, transferrin, total bilirubin, bile acids (total and profiling of specific acids), magnesium, bicarbonates, fructosamine, ketone bodies (beta hydroxybutyrate), glycerol.

Analysis of plasma lipids and lipoproteins:

- Plasma or serum triglycerides, glycerol, total, LDL and HDL cholesterol, free fatty acids.
- Lipoprotein profile by FPLC.



No.	Ret. Time	Peack Name	Height	Area	Rel. Area	Amount	Type
	min		mAU	mAU * min	%		
1	33.24	VLDL	2.042	8.561	2.36	0.064	M *
2	38.94	LDL	4.488	31.282	8.61	0.233	M *
3	47.13	HDL	53.560	323.632	89.04	2.413	M *
Total			60.090	363.476	100.00	2.710	M *

Cholesterol profile in C57BL/6j mouse plasma

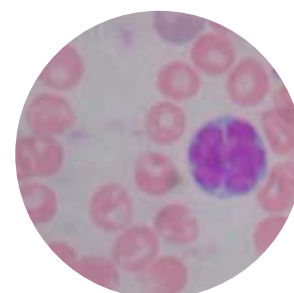
2. HEMATOLOGY

Basic hematology test

It includes determination of white and red blood cell counts, hematocrit, hemoglobin, erythrocyte indexes (Mean Corpuscular Hemoglobin, Mean Corpuscular Hemoglobin Concentration, Mean Corpuscular Volume), and platelets.

Differential blood counts

Neutrophils (segmented, not-segmented), lymphocytes, monocytes, eosinophils, basophils, presence of precursor cells (e.g. blasts, pro-myelocytes, myelocytes, meta-myelocytes), and changes in red blood cells number and morphology are determined by microscopic analysis



Erythropoietin (EPO) measurement

3. COAGULATION

A first line panel of analysis allows screening of the global status of coagulation: Prothrombine Time, Activated Partial Thromboplastin Time and fibrinogen.

4. IMMUNOLOGY

Plasma immunoglobulins

IgG1, IgG2a, IgG2b, IgG3, IgM, IgA and IgE.

FACS analysis

- Peripheral blood*: Total T-cell, T-cell CD4, T-cell CD8, Treg-cell CD25, B-cell-CD19, IgM/IgD, NonB/NonT (CD3-, CD19-), Monocyte-F4/80, Granulocyte Gr1

- Analysis of thymus and spleen populations:

Thymus:

T cells of the αβ lineage: CD4/CD8/TCRαβ

T cells of the γδ lineage: CD4/CD8/TCRγδ

NKT cells: NK1.1/CD3

Spleen:

B cells: CD19/IgM/IgD/CD80

B cells: CD19/IgM/CD21/CD23

NK (natural killer) cells and NKT cells: DX5/NK1.1/CD3

Macrophages and neutrophils: F4-80/Gr-1/Mac-1

T cells: CD4/CD8/CD3/CD44

Cytokines

A panel of 20 mice cytokines can be measured in plasma or serum by Multiplex analysis (IL-1α, IL-1β, IL-2, IL-4, IL-5, IL-6, IL-9, IL-10, IL-12, IL-13, IL-15, IL-17, TNF-α, GM-CSF, G-CSF, IFNγ, IP-10, KC, MCP-1, MIP-1α, RANTES)*

Autoimmune antibodies*

- Anti-nuclear antibodies
- Anti-DNA antibodies
- Rheumatoid factor
- Anti-thyroglobulin antibodies



5. ENDOCRINOLOGY

I- The measurement of different **endocrine panels using the Multiplex technology** has been developed. This technology allows measuring simultaneously about 20 different parameters on 5-50 µl sample.

- Mouse endocrine Panel:

This multiplex assay kit enables the simultaneous quantitative determination of the following five mouse endocrine hormones in any combination: Insulin, Amylin*, Leptin, Glucagon*, and GLP-1*

- Mouse Adipokine

This multiplex assay kit is used to measure Leptin, Resistin, IL-6, TNFα, MCP-1, PAI-I and Insulin in mouse serum or plasma.

- Mouse gut hormones

This Mouse Gut Hormone multiplex assay simultaneously measures the hormones GLP-1* (active), GIP* (total), Ghrelin* (active), PYY* (total), PP*, Amylin* (active), Leptin, and Insulin. This panel is a useful tool for studying the biological functions of these hormones in the gut and in determining the physiological implications that these peptide hormones may have throughout the body.