



Penn Medicine

Perelman School of Medicine
University of Pennsylvania Health System

Penn Diabetes Research Center
Rodent Metabolic Phenotyping Core
Director: Joseph Baur, Ph.D.
Technical Director: Jennifer Rojas, Ph.D.

Request For Clinical Chemistry Analysis For Academic Investigators

Lab/PI:	Requestor:
Phone:	Request Date:
Email:	Account Number:

Select	Species
	Mouse
	Rat
	Other (inquire)

IDEXX VetTEST Chemistry Analyzer

Sample volume: The VetTest Chemistry Analyzer requires a minimum of 40 µl of plasma or serum sample (refer to sample preparation below) to run one test plus 10 µl for each additional test.

Preparing a plasma sample: We recommend using a lithium-heparin tube with a gel barrier. Separate plasma from red cells within five minutes when using lithium-heparin.

1. Use the appropriate tube. Do not use EDTA.
2. Use the appropriate sample collection device.
3. Draw the sample gently. Please avoid hemolysis. Use the correct blood-to-lithium-heparin ratio. Gently invert the sample for 30 seconds to mix.
4. Centrifuge the samples at least 120 seconds at a minimum of 12,000 Relative Centrifugal Force (RCF).
5. Transfer the plasma sample into a fresh 1.5mL micro-centrifuge tube and store at -20°C for subsequent assay analysis (sample should be analyzed within 1 week).

Preparing a serum sample:

1. Use the appropriate tube.
2. Use the appropriate sample collection device.
3. Draw the sample gently. Please avoid hemolysis. Let the sample clot for a minimum of 20 minutes at room temperature.
4. Centrifuge the samples at least 120 seconds at a minimum of 12,000 Relative Centrifugal Force (RCF).
5. Transfer the plasma sample into a fresh 1.5mL micro-centrifuge tube and store at -20°C for subsequent assay analysis (sample should be analyzed within 1 week).
- 6.

Select	Diagnostic Panel Assays	No. Of Samples	Unit Price	Total Price
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Liver/Gut Function:

	Albumin Alkaline phosphatase Alanine aminotransferase Amylase Aspartate aminotransferase Gamma-glutamyltransferase Lactate dehydrogenase Lipase Total bilirubin Total protein		\$80/panel set/replicate	
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Kidney Function:



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	Albumin Ammonia Calcium Creatinine Magnesium Inorganic phosphate Total protein Urea Uric acid		\$80/panel set/replicate	
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Muscle Function:

	Albumin Calcium Creatine kinase Creatinine Lactate Lactate dehydrogenase Magnesium Inorganic phosphate Total protein Urea		\$80/panel set/replicate	
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Total \$

Select	Individual Assays	No. Of Samples	Unit Price	Total Price
	Albumin		\$10/replicate	
	Alkaline phosphatase		\$10/replicate	
	Alanine aminotransferase		\$10/replicate	
	Amylase		\$10/replicate	
	Aspartate aminotransferase		\$10/replicate	
	Ammonia		\$10/replicate	
	Calcium		\$10/replicate	
	Cholesterol		\$10/replicate	
	Creatine kinase		\$10/replicate	
	Creatinine		\$10/replicate	
	Gamma-glutamyltransferase		\$10/replicate	
	Glucose		\$10/replicate	
	Lactate		\$10/replicate	
	Lactate dehydrogenase		\$10/replicate	
	Lipase		\$10/replicate	
	Magnesium		\$10/replicate	
	Inorganic phosphate		\$10/replicate	
	Triglycerides		\$10/replicate	
	Total bilirubin		\$10/replicate	
	Total protein		\$10/replicate	
	Urea		\$10/replicate	
	Uric acid		\$10/replicate	

Total \$

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Quantitative Enzymatic-Colorimetric Assays

Specimen Collection and Preparation: Specimen may be serum, or plasma collected with EDTA as anticoagulant and stored at -20°C (short term) or -80°C (long term). Please avoid hemolysis. To avoid multiple freeze/thaw cycles, samples must be aliquoted into separate tubes for each assay.

Interfering substances for triglyceride assay: Blood collecting devices containing glycerol (glycerin) cannot be used. Gross hemolysis or high bilirubin values, will produce falsely elevated values.

Interfering substances for NEFA assay: Any specimen containing heparin is unsuitable for analysis.

Select	Individual Assays	Sample Type & Volume	No. Of Samples	Unit price	minimum order	Total
	Total Cholesterol (Stanbio)	Plasma or serum (10 µl)		\$5/duplicate	\$50	
	Triglycerides (Stanbio)	Plasma or serum (10 µl)		\$5/duplicate	\$50	
	Non-esterified free fatty acids (WAKO Diagnostics)	Serum (10 µl)		\$5/duplicate	\$50	
	Insulin assay (ALPCO ELISA)	Plasma or serum (15 µl)		Mouse:\$10/replicate Rat:\$12/replicate	\$100	
	Corticosterone assay (ALPCO ELISA)	Plasma or serum (15 µl)		Mouse:\$10/replicate Rat:\$12/replicate	\$100	

Total \$

Sample Shipping and Delivery:

UPenn Investigators: Place samples in designated retainer bin in the drop-off freezer #2 in the 12-170 corridor.

External investigators: Please ship samples Monday through Wednesday so the core receives them no later than Thursday of any given week. Ship on dry ice to the following address: Attn: Jennifer Rojas, RM 172 TRC 12TH FL, 3400 CIVIC CENTER BLVD BLDG 421, ENDOCRINOLOGY/IDOM, PHILADELPHIA, PA 19104, USA.

Sample Labeling:

The sample box and each tube should be uniquely labeled (e.g. Date, Sample ID, Investigator's name/initials, and type of assay requested).

Please send order request and all inquiries to the Technical Director, Jennifer Rojas at Jennifer.Rojas@penndiabetes.upenn.edu.

Kindly acknowledge the Penn Diabetes Research Center grant P30-DK19525, and the services of the Rodent Metabolic Phenotyping Core in all publications and presentations. Please consider the following guidelines when determining whether co-authorship is warranted for core personnel: <https://abrf.org/authorship-guidelines>.