BIOVET®

A DIVISION OF ANTECH®

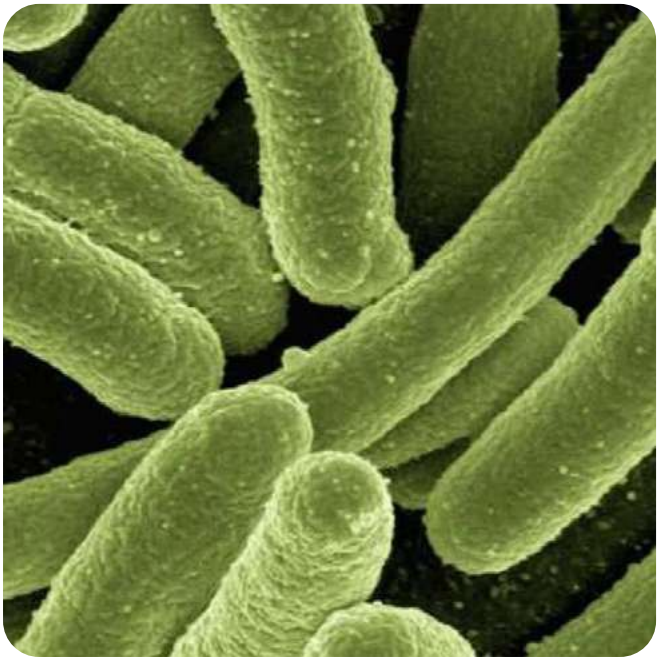
2024

DIRECTORY

OF PRODUCTS AND SERVICES

BOVINE AND SMALL RUMINANTS

PRICING WILL BE EFFECTIVE ON JANUARY 3, 2024



Complete range of analyses
for Cattle farms

BIOVET
A DIVISION OF ANTECH

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To reach us

Biovet has 2 laboratories in Quebec
Saint-Hyacinthe and Quebec City
We have the largest customized pickup network providing the transport of samples in Quebec, even in rural areas.

Ask for a pick up or contact Customer Service
Phone: 450 771-7291 or 1-888-824-6838 (Toll free)
Email: sac@biovet-inc.com
Fax: 450 771-4158
Address: 4375 Beaudry, Saint-Hyacinthe QC J2S 8W2 | 945 Newton Avenue, Local 126-127, Quebec QC G1P 4M3

Opening Hours
Monday to Friday: 8:00 a.m. to 21:00 p.m.
Saturday: 8:30 a.m. to 14:00 p.m.
Sunday: CLOSED

About Biovet

In October 2019, Antech Diagnostics, part of Mars Petcare, acquired Biovet. Joining with Antech is a natural blend of two like-minded organizations with a shared commitment to delivering innovation and quality to veterinarians, allowing them to deliver excellent, compassionate care to pets.

Biovet offers a full range of veterinary diagnostic services including hematology, biochemistry, microbiology, serology, molecular biology, endocrinology, coagulation and cytology. The analyses are performed on site by qualified technical personnel under the supervision of microbiologists and clinical pathologists certified by the American College of Veterinary Pathologists.

Our primary goal is to provide reliable analysis results in the shortest possible time. To this end, Biovet has set up an efficient and personalized sample collection system that makes it possible to reach a large number of veterinary clinics in Quebec. Your samples are analyzed upon receipt, and the results are transmitted to you by the method of your choice through the implementation of a computerized analysis management system. The Biovet laboratory also runs several internal and external quality controls, which ensure the accuracy of the results.

Biovet is proud to provide you with online access to your results. With Bionet, you can have fast, free and real-time access to your result reports, anytime, anywhere with an internet connection. For more information on the Bionet service, you can contact us at bionet@biovet-inc.com or call us at 1-888-824-6838. You can also visit us online at biovet.ca/en/bionet.

Animal health is important to us, which is why Biovet specialists (clinical pathologists and microbiologists) are available to answer your questions. Whether it's determining the best test to diagnose a given condition or interpreting the results, our team is here to assist you.

This User's Guidel contains information that is useful when dealing with Biovet. We are proud to be associated with your practice and we work continually on improving our services so that we may always better meet your needs.

The Team at Biovet

Legend

Samples

(B)	Citrated plasma (blue top tube).
(L)	Whole blood EDTA (lavender top).
(R)	Serum (red top tube + transferred to another plastic or glass tube).
(G)	Heparinized whole blood (green top tube).
	Variety of samples that will be detailed in the test description.
▲	When this symbol appears, see Appendix A - Guidelines for storing and shipping samples to the laboratory.
	For analyzes done externally, it is best to contact us prior to submitting the sample to ensure availability of the test. Transport fee are excluded.
	Note: coagulant:blood ratio, the tube should be filled at least up to the label.

Turnaround Time (TAT)

	Result on the day of receipt
h	Hour
D	Day
W	Week

Abbreviations

Ag	Antigen
Ab	Antibody
ELISA	Enzyme-linked immunosorbent assay
IFA	Immuno-Fluorescent Assay
HI	Hemagglutination Inhibition test
MFIA	Multiplexed Fluorometric Immunoassay
✸	New
PCR	Polymerase Chain Reaction
qPCR	Quantitative Polymerase Chain Reaction
SN	Seroneutralization
VN	Viral Neutralization (for antibodies)
VTM	Virus Transport Medium (call us)
TAT	TURNAROUND TIME
U.R.	Price upon request

Guide for tubes and other sampling material

Shipping bags for samples

Description: Ziploc Shipping bags for samples, with pocket for request form

Usage: IMPORTANT, USE ONLY ONE BAG OF SAMPLES PER REQUEST FORM

Shipping bags for samples

Description: Ziploc Shipping bags for samples, with pocket for request form

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Lavander Tube (10 mL or 3 mL)

Description: collection tube with lavender cap containing EDTA.

Usage: for tests requiring EDTA plasma or EDTA whole blood - full hematology and some biochemistry tests. For cytology of body fluids including thoracic, abdominal, synovial fluids, cystic or cavity fluids (except for urine cytology which must be submitted in a red cap tube or sterile jar).

Red top Tube (8 mL or 3 mL)

Description: anticoagulant-free or additive-free sampling tube.

Usage: for tests requiring serum.

Green Tube (3 mL)

Description: sampling tube with green cap containing heparin.

Usage: for tests requiring heparinated plasma or whole heparinated blood.

SST Tube (8.5 mL or 3.5 mL)

Description: SST sampling tube (Tube with Serum Separator) containing a gel separating red blood cells from the serum after centrifugation

Usage: for tests requiring serum.

Sterile container with twist cap (60 mL)

Description: plastic Sterile container

Usage: for urine tests, parasitologies of small exotic animals or animals, urine cultures for urine tests, parasitologies of small exotic animals or animals, urine cultures, feces or biopsies, feces tests by PCR.

Comment: Store urine and stool samples between 4°C and 8°C for culture and PCR testing.

Container pre-filled with formaldehyde for specimens for histopathology (40 mL, 60 mL, 90 mL or 120 mL)

Description: The amount of formaldehyde in the specimen container is about half the volume of the container

Usage: for histopathological analyses

Comment: The volume of formaldehyde should be 10 times that of the tissue.

Swab with transport medium

Description: Swab and tube with Amies transport medium with or without charcoal

Usage: for aerobic or anaerobic culture

Comment: Keep the swab between 2 and 8 °C. Punch biopsy biopsies can be submitted on a swab in contact with the transport environment for a culture.

Swab with transport medium

Description: Swab and tube with Amies transport medium with or without charcoal

Usage: for aerobic or anaerobic culture

Comment: Keep the swab between 2 and 8 °C. Punch biopsy biopsies can be submitted on a swab in contact with the transport environment for a culture.

EZTest - Steam

Description: EZTest is a self-contained biological indicator for monitoring sterilization.

Usage: Return the EZTest – cycle for Autoclave Quality Assurance Program, see Microbiology section.

Comment: Available at Biovet, to order: order@biovet-inc.com

One-bottle, blood culture system ✱

Description: Système de bouteille pour hémoculture facile à utiliser.

Usage: Detection of bacteria in blood and sterile body fluids.

Comment: Available at Biovet, to order: order@biovet-inc.com

Nasopharyngeal swab kit (5 units)

Description: 30 inches double sheath swab and Tubes with Amies liquid transport medium (1 mL in 10 mL tube)

Usage: suitable for bacteriological examinations and PCR

Comment: available at Biovet, to order: order@biovet-inc.com

Tests Offered

Bovine

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
PROFILES			
BV1226	**Abortion Profile** QC BVDV p80 ab ELISA (CER), IBR Indirect ab ELISA, Neospora ab ELISA *Leptospira* (6 serovars) ab MAT *Except for *Leptospira* which is done externally and turnaround Time is about 1 week.	1.0 mL serum (R)	2-5 D *
	Complete blood count (CBC), see **HEMATOLOGY** section		
BV1172	**Chemistry Profile** Includes: Alb, ALP, AST, Tot. Bil., Ca, Cl, CK, Creat, Gap, GGT, Glob., Glu, Mg, P, K, Tot. Prot., A/G ratio, Na, TCO2, BUN.	1.0 mL serum (R)	
BV1175	**Complete Biovet Profile** Chemistry: see Chemistry Profile above Hematology: see CBC below.	1.0 mL Whole blood EDTA (L) + 1.0 mL Serum (R)	
BV1176	**Complete Profile with pathologist's comment**		
BV1208	**Digestive Profile (ELISA)** Includes: *Cryptosporidium*, *E. coli* K99, Rotavirus and Coronavirus Ag ELISA	5 g Feces ▲	2-5 D
	Digestive Profile qPCR, (8 agents) see PCR section		
BV1224	**Health Profile 1** includes: Leukosis, Neospora, S. Dublin Ab ELISA	1.0 mL serum (R)	
BV1225	**Health Profile 2** Same as Health Profile 1 above with Staph. aureus qPCR	1.0 mL serum (R)	
BV1179	**Hepatic Profile with GLDH** QC Includes: Alb, ALP, AST, Tot. Bil., GGT, Glob, Glu, Tot. Prot., BUN, GLDH. * Except for GLDH, which is done externally."	1.5 mL serum (R)	*
BV1180	**Peripartum Profile (Paresis)** includes: AST, Ca, Creat, CK, K, Mg, P, Tot. Prot., BUN.	1.0 mL serum (R)	
BV1178	**Renal Profile** includes: Alb, Ca, Creat, Glu, Na, P, Tot. Prot., BUN.	1.0 mL serum (R)	
	Respiratory Profile qPCR, (10 pathogens) see **PCR** section		
CHEMISTRY			
CT010	**Albumin** Avoid hemolysis.	0.3 mL serum (R)	
CT020	**ALP** Refrigerate or freeze	0.3 mL serum (R)	
CT030	**ALT** Avoid hemolysis	0.3 mL serum (R)	
CT060	**AST** Avoid hemolysis	0.3 mL serum (R)	
CT100	**BUN (urea)** Avoid hemolysis	0.3 mL serum (R)	
CT110	**Calcium (total)** Avoid lipemia.	0.3 mL serum (R)	
CS18537	**Calcium, ionized** Fasting is necessary. Avoid hemolysis and lipemia. • Do not open cap Sample requirement for accurate measurement of ionized calcium (iCa2+) is serum that has been anaerobically transferred from the spun SST or RTT (using a needle and syringe to avoid air exposure) into a plain unopened red-top vacutainer. Puncture the stopper with the syringe needle and allow the serum to be transferred under pressure. • -Do NOT open this tube prior to testing. • Please boldly label the sample tube as ""IONIZED CALCIUM SERUM"" and keep frozen or refrigerate. Samples that have been exposed to air may have artifactually decreased (iCa2+) and those transported in SST tubes may have been artifactually increased (iCa2+). † The tube submitted for this test will be used ONLY for this analysis, if you require other tests, please provide another tube.	0.5 mL serum (R) †	3 D

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
CT120	**Chloride**	0.3 mL serum (R)	
CT130	**Creatine Kinase (CK)**	0.3 mL serum (R)	
CT135	**Creatinine**	0.3 mL serum (R)	
BV7072	**Copper QC** This test is done externally.	2.0 mL serum (R)	2-3 D
CT145	**GGT** Avoid hemolysis.	0.3 mL serum (R)	
BV7035	**GLDH QC** Test référé à un laboratoire externe.	0,5 mL sérum (R)	
CT011	**Globulines (Alb & PT)** Refrigerate or freeze.	0.5 mL serum (R)	
CT150	**Glucose** Avoid hemolysis, quickly separate the serum from the red blood cells.	0.3 mL serum (R)	
CT155	**Iron (serum)** Avoid hemolysis.	0.5 mL serum (R)	4 D
CT170	**Magnesium** Avoid hemolysis.	1,0 mL sérum (R)	
CT180	**Phosphorus** Avoid hemolysis.	0.3 mL serum (R)	
CT185	**Potassium** Avoid hemolysis.	0.3 mL serum (R)	
BV7074	**Selenium (serum) QC** Avoid hemolysis. This test is done externally.	1.0 mL serum (R)	12 D*
BV7076	**Selenium + Vitamin E** * Result in 12 to 20 days.		
CT195	**Sodium**	0.3 mL serum (R)	
CT190	**Total Proteins** Avoid hemolysis and lipemia.	0.3 mL serum (R)	
CT205	**Triglycerides** Fast 12-18 h.	0.3 mL serum (R)	
BV7078	**Vitamin A QC** This test is done externally. *Result in up to 20 days.	2.0 mL serum (R)	12 D*
CS16016	**Vitamin D *** This test is done externally. * Shipping fee are included. ** Result in up to 15 days.	2.0 mL serum (R)	15 D**
CS16850	**Vitamin E QC** This test is done externally.	1.0 mL serum (R)	12 D*
BV7076	**Selenium and Vitamin E** * Result in 12 to 20 days.		
BV7079	**Zinc QC** This test is done externally.	0.5 mL serum (R)	1 W
ENDOCRINOLOGY			
BV0071	**Pregnancy test (milk)**	1.0 mL milk	2-4 D
BV0065	**Pregnancy test (serum)** From 28 days after insemination.	1.0 mL serum (R) or Plasma EDTA (L)	1-3 D
CB475	**Progesterone** Centrifuge and separate quickly. Do not use SST tube. Refrigerate milk. * Test on milk will take 1-3 days.	1.0 mL serum (R) or 1.0 mL milk	*

Tests Offered

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
HEMATOLOGY			
CT330	**CBC (Complete Blood count)** If possible, submit 2 blood smears, not stained, immediately after collection with EDTA blood. The EDTA tube should be kept cold. Avoid lipemia, sample <48 hours. Includes leukocytes, platelets and erythrocyte counts (Gr, Hb, Ht, CGMH, VGM), differential, microscopic examination, fibrinogen, reticulocyte count (if anemia).	1.0 mL Whole blood EDTA (L)	
CT365	**Fibrinogen**	1.0 mL Whole blood EDTA (L)	
BV0078	**Hemoglobin** Keep cool. Avoid lipemia.	1.0 mL Whole blood EDTA (L)	
HISTOPATHOLOGY			
BV7096	**Histopathology (1 tissue)** Place the sample in 10% formalin. The formalin volume should be at least 10 times that of the tissue. Use containers with a wide mouth. Hollow organs (e.g. intestines) should be open lengthwise before being placed in formalin to ensure good fixation of the mucosa. For all excisional biopsies, margins will be assessed.		3-5 D
BV7099	**Additional tissue (histopathology)**		
MICROBIOLOGY			
BV0082	**Aerobic Colony Count (mesophiles)** Refrigerate, sterile container.	2 mL Milk ▲	2 D
CM020	**Aerobic Culture** Refrigerate. Sterile container or a swab with a solid transport medium. Refer to Appendix B, if you are hesitating between aerobic or anaerobic culture.	500 µl urine ▲ Tissue, swab, liquid, other	2-5 D
BV1154	**CATB Aerobic culture + Sensitivity** sterile container or a swab with a solid transport medium. Refer to Appendix B, if you are hesitating between aerobic or anaerobic culture.	500 µl urine ▲ Tissue, swab, liquid, other	2-5 D
CM030	**Anaerobic Culture** sterile container as small as possible for the sample so that there is as little air as possible in the container, or a swab with a solid transport medium. DO NOT refrigerate; It is preferable that the sample be sent to the lab the same day. Anaerobic organisms are sensitive to cold, should be stored at room temperature and not in the fridge. Refer to Appendix B, if you are hesitating between aerobic or anaerobic culture.	500 µl urine or 10 µl Tissue, swab, liquid, other	2-5 D
EXT	**Antimicrobial susceptibility**	Isolate	2 D
BV1243	**Antimicrobial susceptibility (Milk)** Culture must have been done previously. see Appendix E: List of antibiotics (sensitivity)		
	Autoclave Quality Assurance Program ▯ Must use EZTest - Steam. Easy-to-use, EZTest is a self-contained biological indicator for monitoring sterilization. EZTest - Steam contains Geobacillus stearothermophilus which will only be destroyed by adequate sterilization. These biological indicators comply with ISO 11138 and EN 866 standards and USP requirements.	▯	3 D
	EZTest Steam (1 unit)		
	EZTest Steam (Box of 12)		
BV1155	**Blood Culture + Antimicrobial susceptibility** ▯ Must use One-bottle, Blood culture system, follow the incubation protocol and DO NOT REFRIGERATE. This test detects the growth of aerobic, anaerobic and micro-aerophilic organisms from blood samples using the blood culture system.	▯ Blood, CSF	7 D
	One-bottle, Blood culture system		

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
CM225	***Campylobacter jejuni/coli*/lari (culture)** Also available in profile, see Fecal culture	1 g Feces ▲ 325 mL Bulk Milk 10 mL Milk	5-10 D
BV1143	***Clostridium perfringens* (culture)** Also available in profile, see Fecal culture		
BV0010	***Clostridium perfringens* (Toxin profile)** Culture must have been done previously.		
BV1143	**Fecal culture + ATB** Includes aerobic Culture, *Campylobacter jejuni/coli*/lari, *Clostridium perfringens*, *Salmonella* spp. and ✱Shigella. When isolating salmonella or shigella, an Antibiotic Sensitivity will be automatically performed.	10 g Feces ▲	3-10 D
BV1199	**Litter / wipe profile** ▯ wipe placed in a bag, representative sample of the litter, refer to Appendix C. Includes Aerobic Colony Count, Total Coliforms (Enumeration), *E. coli* (Enumeration), Staphylococcus spp. *Streptococcus* spp. and *Klebsiella* spp.	▯ 10 g	3-7 j
	✅ **See Appendix D: why choose our service rather than do the milk analyses yourself.**		
BV0039	**Milk bacteriology** Refrigerate, sterile container.	5 mL Milk ▲	1-3 D
BV0066	**Milk bacteriology - Heifer** Refrigerate, sterile container (no pool). For more information on this test, see Appendix G: Detection Of Mammary Staphylococcal Infections In Primiparous.	5 mL Milk ▲	2-5 D
BV1200	**Milk Bulk tank Profile** Bulk tank milk in a sterile container. Refrigerate. Submit to lab within 24 hours. Includes numeration of total *coli*forms and *E. coli*, as well as mesophilic aerobic colony counts, mesophilic aerobic colony counts after 18hours of incubation at 12.8°C and mesophilic aerobic colony counts after heating the milk at 62.8°C for 30min.	50 mL Milk	3-7 D
BV1152	**Respiratory profil (Culture) + Sensitivity** ▯ transtracheal aspirations or nasopharyngeal swabs. Refrigerates. Specific search on different culture media: Bibersteinia trehalosi, Gallibacterium anatis, Histophilus somni, Mannheimia spp, Pasteurella multocida, Trueperella pyogenes and *Salmonella* spp. Includes sensitivity testing.	▯	7 D
CM121	***Salmonella* (culture)** Refrigerate, sterile container. Also available as a profile, see Fecal culture. See also *Salmonella* Serotyping (PCR section).	Tissue; 10 g feces; other	4 D
	✅ **See Appendix H: about the search for salmonella in cattle.**		
TRM-545	**Wipe (culture), see Litter / wipe profile**		
CM121	***Salmonella* (culture)** Réfrigérer; contenant stérile. Également disponible en profil, voir Culture de selles. Voir aussi Sérotypage (section PCR).	Tissue; 10 g feces; other	4 j
PARASITOLOGY			
CT785	**Baermann** Keep cool.	30 g Feces ▲	5-7 D
CT550	***Cryptosporidium* - ag ELISA**	5 g Feces ▲	4-12 D
BV7091	**Cutaneous Scraping (KOH)** 🖒 **QC** ▯ Crusts, hair; no quantity to specify. This test is done externally.	▯	3-4 D
BV7083	**Parasite identification** 🖒 **QC** Fresh parasite or preserved in 70% ethanol. This test is done externally.	30 g Feces	1-2 D

Tests Offered

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
CT805	**Parsitology (LESS than 3 months old)** Refrigerate. If the bovine is 3 months old, the zinc sulfate test is recommended.	5 g Feces ▲	
BV7026	**Parasitologie (PLUS de 3 mois)** **QC** Refrigerate. If the bovine is MORE than 3 months old, the Wisconsin test is recommended and in that case this test is done externally.	5 g Feces	3-4 D
	Wisconsin or Zinc Sulphate see Parsitology		
PCR			
BV1203	**Abortion Profile qPCR** fetal tissues (lung, kidney, heart, stomach contents) and placenta (placentome). Includes: BVD, IBR, *Campylobacter* spp., *Chlamydophila* spp., Coxiella burnetii, *Leptospira* spp., Ureaplasma diversum, Neospora caninum & *Tritrichomonas* fœtus.		2-3 D ‡
BV1204	**Simplified Abortion Profile PCR** Includes: BVD, IBR, *Leptospira* spp. and Neospora caninum		
BV0085 ✱	***Anaplasma* marginale qPCR** Refrigerate	3.0 mL Whole blood EDTA (L)	24-48 h ‡
CS16115	**Bovine leukemia virus (BLV) PCR** Refrigerate. Possibility of pooling up to 10 samples.	2.0 mL Whole blood EDTA (L)	1-2 D ‡
BV0046	**BVD qPCR*** Tissues (biopsy, ear notch, etc.), 3 mm. Refrigerate. Possibility of pooling up to 10 samples for serum and whole blood. * Includes testing station.	10 mL Whole blood EDTA, Plasma EDTA (L), Serum (R) or milk, 5 gr Feces	1-2 D ‡
BV1188	***Clostridium* multiplex qPCR : C. chauvoei, C. septicum, C. novyi and C. sordelii** pieces of affected tissues (minimum 5 cm x 5 cm x 5 cm, wrapped in absorbent paper towels and placed in a tightly closed container), swab cultures of affected tissues (swabs without transport medium or with 0.5 mL sterile saline to preserve moisture). Refrigerate.		1-2 D ‡
BV0010	***Clostridium perfringens* (Profil des toxines)** For this test the *Clostridium perfringens* culture must have been done previously.	Isolate	
BV1214	**Coagulase-negative staphylococci (CNS) qPCR** Refrigerate.	2.0 mL Milk ▲	2-3 D ‡
BV0052	**Coronavirus qPCR** Refrigerate	5 g Feces ▲	1-2 D ‡
BV1205	**Diarrhea Profile qPCR (calf)** feces collected at the beginning of clinical signs. Refrigerate (4-8°C). 4 agents: bovine Coronavirus (BoCV), Rotavirus A, *Cryptosporidium* spp. and *E. coli* K99 /F5	▲ 5 g Feces	2-3 j ‡
BV1206	**Digestive Profile qPCR** feces collected at the beginning of clinical signs. Refrigerate (4-8°C). 8 agents: BVDV, bovine Coronavirus (BoCV), Rotavirus A, Torovirus, *Cryptosporidium* spp., *Giardia* intestinalis, *Salmonella* spp. and *E. coli* K99 /F5	▲ 5 g Feces	2-3 j ‡
BV0048	**Free-martin (DNA – genetic)**	1.0 mL Whole blood EDTA (L)	2-3 D ‡
CS14456	**Herpesvirus type 1 BoHV1 (IBR) qPCR** Swabs, lung ▲	5.0 Serum (R)	2-3 D ‡
CT974 / CT976	***Leptospira* spp. qPCR** Refrigerate.	2.0 mL Whole blood EDTA (L) or 10 mL Urine or Tissue.	2-3 D ‡
BV0072	**M. paratuberculosis qPCR** intestines cont. (tightly close container); milk. Refrigerate.	5 g Feces ▲	2-3 D ‡
BV0075	***Mycoplasma* bovis qPCR**	2.0 mL Milk ▲	2-3 D ‡
BV0036	***Mycoplasma* spp qPCR** Swab, lung		
BV1196	**M. bovis + Mycocoplasma spp**		

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
	✅ To learn more see: Appendix E: New approach to the diagnosis of respiratory infections in cattle.		
BV1211	**Respiratory Profile - complete qPCR** ▯ transtracheal aspirations or nasopharyngeal swabs. Refrigerate. Includes: Bacterial and viral Respiratory Profile	▲▯	1-2 D ‡
BV1210	**Respiratory Profile - bacterial qPCR** ▯ transtracheal aspirations or nasopharyngeal swabs. Refrigerate. Includes: Histophilus somni, M. bovis, Mannheima haemolytica, Pasteurella multocida & Trueperella pyogenes. Also available Respiratory profil (Culture) + Sensitivity see Microbiology section	▲▯	1-2 D ‡
BV1213	**Respiratory Profile - viral qPCR** ▯ transtracheal aspirations or nasopharyngeal swabs. Refrigerate. Includes: BoCV (Coronavirus), BoHV1 (IBR), BRSV, BVDV, PI3 and Influenza Virus D (IVD).	▲▯	1-2 D ‡
BV1212	**Respiratory Profile - viral PLUS qPCR** ▯ transtracheal aspirations or nasopharyngeal swabs. Refrigerate. Inclut : Viral Respiratory Profile (BoHV1, BCoCV, BRSV, PI3, BVDV, Influenza D) + *Mycoplasma* bovis	▲▯	1-2 D ‡
	✅ **See Appendix H: about the search for salmonella in cattle**		
BV0093	***Salmonella* spp. qPCR** ▯ tissue, other. Refrigerate.	▯ 10 g Feces ▲	2-3 D ‡
BV0081	***Salmonella* (culture) after positive PCR**		2-3 D ‡
BV0092	***Salmonella* erotyping (100 serotypes)** For this test the *Salmonella* culture must have been done previously.	Isolate	5-10 D ‡
BV0095	***Salmonella* spp-Typhimurium-Dublin qPCR** ▯ other. Refrigerate.	▯ 10 g Feces ▲	2-3 D ‡
BV0102	**Staphylococcus aureus qPCR** Refrigerate.	2,0 mL Milk ▲	2-3 D ‡
BV0103	**S. aureus + S. agalactiae**		
BV0091	**S. aureus, S. agalactiae, S. uberis & S. dysgalactiae**		
BV0104	**S. agalactiae, S. uberis S. dysgalactiae & M. bovis**		
BV0106	***Streptococcus* agalactiae**	2,0 mL Milk ▲	2-3 D ‡
BV0107	***Streptococcus* dysgalactiae**		
BV0108	***Streptococcus* uberis** **Refrigerate.**		
BV0111	**Ureaplasma diversum qPCR**	vaginal swab, placenta.	2-3 D ‡
	‡ These tests are performed from Monday to Friday.		
SEROLOGY			
BV0068	**Bovine Leukosis (BLV) - Ab ELISA**	1.0 mL Serum (R) or Milk	1-2 D ‡
BV0069	**Price for herd (25 to 49)**		
BV0070	**Price for herd (50 and +)**		
BV0043	**Brucellosis - Ab APAT** CFIA form mandatory	1.0 mL serum (R)	1-2 D ‡
BV0044	**BVD Ag ELISA, immunotolerant** For test on serum the animal must be 3 months old or older. If less than 3 months, it is recommended to perform a PCR test.	Biopsies 1.0 mL Serum (R)	2-5 D ‡
BV0112	**Price for herd (25 to 49)**		
BV0113	**Price for herd (50 and +)**		
BV0045	**BVD p80 - Ab ELISA**	0.5 mL serum (R)	2-5 D ‡
BV7060	**BVD type I - Ac SN QC**	1.5 mL serum (R)	5-10 D

Tests Offered

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
BV7061	**BVD type 2 - Ac SN** 🚚 **QC** Those tests are done externally.		
BV0063	**IBR - Ab cELISA (competitive)**	1.0 mL serum (R)	2-5 D ‡
BV0064	**IBR - Ab ELISA indirect**	1.0 mL serum (R)	2-5 D ‡
BV7069	**IBR - Ab SN** 🚚 **QC**	1.5 mL serum (R)	5-10 D
BV7087	***Leptospira* (6 serovars) - Ab MAT -** This test is done externally.	1.0 mL serum (R)	1 W
BV0059	***Leptospira* hardjo Ac IgG ELISA**	1.0 mL serum (R)	2-5 D ‡
BV0073	**M. paratuberculosis - Ab ELISA**	1.0 mL serum (R)	2-5 D ‡
BV0077	***Mycoplasma* bovis - Ab ELISA**	1.0 mL serum (R)	2-5 D ‡
BV0088	**Neospora caninum - Ab ELISA**	1.0 mL Serum (R) or Milk	1-2 D ‡
BV0089	**Price for herd (25 to 49)**		
BV0090	**Price for herd (50 and +)**		
BV0055	***Salmonella* Dublin Ac ELISA** individual or bulk milk or individual serum.	1.0 mL Serum (R) or Milk	1-2 D ‡
BV0056	**Pool de 5 (* available on serum)**		
BV0057	**Price for herd (25 to 49)**		
BV0058	**Price for herd (50 and +)**		
	‡ These tests are performed from Monday to Friday.		
UROLOGY			
CT760	**Urinalysis** Keep cool.	5.0 mL Fresh urine	24 h
BV1013	**Urinalysis with pathologist's comment**		
VIROLOGY			
BV0051	**Coronavirus - Ag ELISA**	5 g Feces ▲	2-5 D ‡
BV0114	***E. coli* K99 Ag ELISA**	5 g Feces ▲	2-5 D ‡
BV0116	**Rotavirus - Ag ELISA**	5 g Feces ▲	2-5 D ‡
	‡ These tests are performed from Monday to Friday.		
OTHER SERVICES, FEES AND DISCOUNTS			
BVFR03	**Cancellation fees**		
BVFR08	**Emergency fees (RUSH)**		
BVFR06	**Intermediate fees**		
CT764	**Pathologist's comments**		
BVFR01	**Pooling fees (max. 5 samples)**		
	🚚 **Shipping fees NOT included (unless otherwise specified)**		
TRA-0042	**(QC) Shipping fees in Quebec**		
TRA-0006	**(CA) Shipping fees in Canada**		
TRA-0003	**(US) Shipping fees in United States**		
	Cooler upon request		
	Volume discount per month • $1000 and over = 3% • $2000 and over = 5% • $3000 and over = 8% • $4000 and over = 10%		
	Prices are subject to change without notice.		

Ovine and caprine

Tests Offered

Ovine and caprine

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
PROFILES (OVINE AND CAPRINE)			
	CBC (Complete Blood count), see HEMATOLOGY section		
BV1172	**Chemistry Profile** Includes: Alb, AST, Tot. Bil., Ca, Cl, Crea, CK, Gap, Glob, Gluc, K, Mg, Na, P, Tot. Prot., A/G ratio, TCO2, BUN.	1.0 mL serum (R)	
BV1175	**Complete Biovet Profile** Chemistry: same as Chemistry Profile above. Hematology: same as CBC below.	1,0 mL Whole blood EDTA (L) + 1,0 mL Serum (R)	
BV1176	**With pathologist's comment**		
BV1208	**Digestive Profile (ELISA)** Includes: *Cryptosporidium*, *E. coli* K99, Rotavirus and Coronavirus Ag ELISA	5 g Feces ▲	2-5 D *
	Digestive Profile qPCR, (8 agents), see PCR section		
BV1223	**Renal Profile** inclut: Alb, Ca, Créat, Glu, Na, P, , Tot. Prot., BUN	1.0 mL serum (R)	
CHEMISTRY (OVINE AND CAPRINE)			
CT010	**Albumin** Avoid hemolysis.	0.3 mL serum (R)	
CT020	**ALP** Refrigerate or freeze.	0.3 mL serum (R)	
CT030	**ALT** Avoid hemolysis.	0.3 mL serum (R)	
CT060	**AST** Avoid hemolysis.	0.3 mL serum (R)	
CT100	**BUN (urea)** Avoid hemolysis.	0.3 mL serum (R)	
CT110	**Calcium (total)** Avoid lipemia.	0.3 mL serum (R)	
CS18537	**Calcium, ionized** Fasting is necessary. Avoid hemolysis and lipemia. • Do not open cap Sample requirement for accurate measurement of ionized calcium (iCa2+) is serum that has been anaerobically transferred from the spun SST or RTT (using a needle and syringe to avoid air exposure) into a plain unopened red-top vacutainer. Puncture the stopper with the syringe needle and allow the serum to be transferred under pressure. • Do NOT open this tube prior to testing. • Please boldly label the sample tube as ""IONIZED CALCIUM SERUM"" and keep frozen or refrigerate. Samples that have been exposed to air may have artifactually decreased (iCa2+) and those transported in SST tubes may have been artifactually increased (iCa2+). † The tube submitted for this test will be used ONLY for this analysis, if you require other tests, please provide another tube.	0.5 mL serum (R) †	3 D
CT120	**Chloride**	0.3 mL serum (R)	
CT125	**Cholesterol**	0.3 mL serum (R)	
CT130	**Creatine Kinase (CK)**	0.3 mL serum (R)	
CT135	**Creatinine**	0.3 mL serum (R)	
BV7072	**Copper QC** This test is done externally.	2.0 mL serum (R)	2-3 D
CT145	**GGT** Avoid hemolysis.	0.3 mL serum (R)	
CT011	**Globulines (Alb & PT)** Refrigerate or freeze.	0.5 mL serum (R)	
CT150	**Glucose** Avoid hemolysis, quickly separate the serum from the red blood cells.	0.3 mL serum (R)	

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
CT155	**Iron (serum)** Avoid hemolysis.	0.5 mL serum (R)	4 D
CT170	**Magnesium** Avoid hemolysis.	1,0 mL sérum (R)	
CT180	**Phosphorus** Avoid hemolysis.	0.3 mL serum (R)	
CT185	**Potassium** Éviter l'hémolyse.	0,3 mL sérum (R)	
BV7074	**Selenium (serum) QC** Avoid hemolysis. This test is done externally.	1.0 mL serum (R)	12 D*
BV7076	**Selenium + Vitamin E** * Result in 12 to 20 days.		
CT195	**Sodium**	0.3 mL serum (R)	
CT190	**Total Proteins** Avoid hemolysis and lipemia.	0.3 mL serum (R)	
CT205	**Triglycerides** Fast 12-18 h.	0.3 mL serum (R)	
BV7078	**Vitamin A QC** This test is done externally. *Result in up to 20 days.	2.0 mL serum (R)	12 j*
CS16016	**Vitamin D *** This test is done externally. * Shipping fee are included. ** Result in up to 15 days.	2.0 mL serum (R)	15 D*
CS16850	**Vitamin E QC** This test is done externally.	1.0 mL serum (R)	12 D*
BV7076	**Selenium and Vitamin E** * Result in 12 to 20 days.		
BV7079	**Zinc QC** This test is done externally.	0.5 mL serum (R)	1 W
HEMATOLOGY (OVINE AND CAPRINE)			
CT332	**CBC (Complete Blood count)** If possible, submit 2 blood smears, not stained, prepared immediately after collection with EDTA blood. The EDTA tube should be kept cold. Sample <48 hours. Include leukocytes, platelets and erythrocyte counts (Gr, Hb, Ht, CGMH, VGM), differential, microscopic examination, fibrinogen, reticulocyte count (if anemia).	1.0 mL Whole blood EDTA (L)	
CT365	**Fibrinogen**	1.0 mL Whole blood EDTA (L)	
BV0078	**Hemoglobin** Keep cool. Avoid lipemia.	1.0 mL Whole blood EDTA (L)	
HISTOPATHOLOGY (OVINE AND CAPRINE)			
BV7096	**Histopathology (1 tissue)** Place the sample in 10% formalin. The formalin volume should be at least 10 times that of the tissue. Use containers with a wide mouth. Hollow organs (e.g. intestines) should be open lengthwise before being placed in formalin to ensure good fixation of the mucosa. For all excisional biopsies, margins will be assessed.		3-5 D
BV7099	**Additional tissue (histopathology)**		
MICROBIOLOGY (OVINE AND CAPRINE)			
BV0082	**Aerobic Colony Count (mesophiles)** Refrigerate, sterile container.	2 mL Milk ▲	2 D
CM020	**Aerobic Culture** Refrigerate. Sterile container or a swab with a solid transport medium. Refer to Appendix B, if you are hesitating between aerobic or anaerobic culture. Also available:	500 µl urine ▲ Tissue, swab, liquid, other	2-5 D

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
BV1143	**CATB Aerobic culture + Sensitivity** sterile container or a swab with a solid transport medium. Refer to Appendix B, if you are hesitating between aerobic or anaerobic culture.	500 µl urine ▲ Tissue, swab, liquid, other	2-5 D
BV1242	**Aerobic + anaerobic Culture + Sensitivity**		
ADD210	**Suivi - CATB (Culture + antibiogramme)** Follow -up culture on same so*urce may be ordered within 2 months of original submission of an Aerobic Culture. Indicate order number and date of the original submission on the requisition form.		
CM030	**Anaerobic Culture** sterile container as small as possible for the sample so that there is as little air as possible in the container, or a swab with a solid transport medium. DO NOT refrigerate; It is preferable that the sample be sent to the lab the same day. Anaerobic organisms are sensitive to cold, should be stored at room temperature and not in the fridge. Refer to Appendix B, if you are hesitating between aerobic or anaerobic culture.	500 µl urine or 10 µl Tissue, swab, liquid, other	2-5 D
EXT	**Antimicrobial susceptibility**	Isolate	2 D
BV1243	**Antimicrobial susceptibility (Milk)** Culture must have been done previously. see Appendix E : List of antibiotics (sensitivity)		
	Autoclave Quality Assurance Program ▯ Must use EZTest - Steam. Easy-to-use, EZTest is a self-contained biological indicator for monitoring sterilization. EZTest - Steam contains Geobacillus stearothermophilus which will only be destroyed by adequate sterilization. These biological indicators comply with ISO 11138 and EN 866 standards and USP requirements.	▯	3 D
	EZTest Steam (1 unit)		
	EZTest Steam (Box of 12)		
	✅ **To learn more see: Appendix E: New approach to the diagnosis of respiratory infections in cattle.**		
CM225	***Campylobacter jejuni/coli*/lari (culture)** Also available in profile, see Fecal culture	1 g Feces ▲ 325 mL Bulk Milk 10 mL Milk	5-10 D
BV1143	***Clostridium perfringens* (culture)** Also available in profile, see Fecal culture		
BV0134	**Corynebacterium pseudotuberculosis Search**	Swab	2-5 D
BV1143	**Fecal culture + ATB** Includes aerobic Culture, *Campylobacter jejuni/coli*/lari, *Clostridium perfringens*, *Salmonella* spp. and ✱Shigella. When isolating salmonella or shigella, an Antibiotic Sensitivity will be automatically performed.	10 g Feces ▲	3-10 D
BV0039	**Milk bacteriology** Refrigerate, sterile container.	5 mL Milk ▲	1-3 D
CM240	**Ringworm (Fungal culture)** A culture is performed on a selective medium for Dermatophytes, if a typical growth is observed, a confirmation by our PCR test is performed and included in the price.	Skin scraping, Hair	21 D
CM121	***Salmonella* (culture)** Refrigerate, sterile container. Also available as a profile, see Fecal culture. See also *Salmonella* Serotyping (PCR section).	Tissue; 10 g feces; other	4 D
PARASITOLOGY (OVINE AND CAPRINE)			
CT785	**Baermann** Keep cool.	30 g Feces ▲	5-7 D
CT550	***Cryptosporidium* - ag ELISA**	5 g Feces ▲	4-12 D
BV7091	**Cutaneous Scraping (KOH)** QC ▯ Crusts, hair; no quantity to specify. This test is done externally.	▯	3-4 D

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
BV7083	**Parasite identification** QC Fresh parasite or preserved in 70% ethanol. This test is done externally.	30 g Feces ▲	1-2 D
BV7026	**Parasitology** QC Fresh parasite or preserved in 70% ethanol. This test is done externally.	5 g Feces ▲	3-4 D
	Wisconsin or Zinc Sulphate see Parsitology		
PCR (OVINE AND CAPRINE)			
BV0087	***Chlamydophila* spp qPCR** fetal tissues (lung, kidney, heart, stomach contents) and placenta (placentome).		2-3 D ‡
BV0010	***Clostridium perfringens* (Profil des toxines)** For this test the *Clostridium perfringens* culture must have been done previously.	Isolate	
BV0053	**Coxiella burnetii qPCR** fetal tissues (lung, kidney, heart, stomach contents) and placenta (placentome).		2-3 D ‡
BV1144	**Dermatophytes (teigne) qPCR** Samples of hair and/or hair dander (min 10) or culture media with hair. Take the hair and dander from border of lesions in an empty sterile container. In the absence of visible lesions, brush the coat with a toothbrush. The main zoophilic species detected are: Microsporum *canis*, *Trichophyton* spp (*benhamiae*, bullosum, equinum, erinacei, *mentagrophytes*, quinckeanum, simii, verrucosum) and Nannizzia gypsea (essentially geophilic species, formerly known as Microsporum *gypseum*). These three species or species complexes are now highlighted using a new real-time PCR (qPCR) multiplex. Also available : Ringworm (Fungal culture), see Microbiology section		1-2 D ‡
BV1206	**Digestive Profile qPCR** feces collected at the beginning of clinical signs. Refrigerate (4-8°C). 8 agents: BVDV, bovine Coronavirus (BoCV), Rotavirus A, Torovirus, *Cryptosporidium* spp., *Giardia* intestinalis, *Salmonella* spp. and *E. coli* K99 /F5	▲ 5 g feces	2-3 j ‡
CT974 / CT976	***Leptospira* spp. qPCR** Refrigerate.	2.0 mL Whole blood EDTA (L) or 10 mL Urine or Tissue.	2-3 D ‡
BV0072	**M. paratuberculosis qPCR** intestines cont. (tightly close container); milk. Refrigerate.	5 g Feces ▲	2-3 D ‡
BV0036	***Mycoplasma* spp qPCR**	lung	2-3 D ‡
BV1196	**M. bovis & *Mycoplasma* spp qPCR**		
BV1211	**Respiratory Profile qPCR** transtracheal aspirations or nasopharyngeal swabs. Refrigerate. Includes: BoCV (Coronavirus), BoHV1 (IBR), BRSV, BVDV Histophilus somni, M. bovis, Mannheima haemolytica, Pasteurella multocida, PI3, Trueperella pyogenes and Influenza Virus D (IVD).		1-2 D ‡
	Ringworm see Dermatophytes (Ringworm)		
BV0093	***Salmonella* spp. qPCR** Tissue, Feces, other. Refrigerate	10 g Feces ▲	2-3 D ‡
BV0102	**Staphylococcus aureus qPCR** Refrigerate.	2.0 mL Milk ▲	2-3 D ‡
BV0030	***Toxoplasma* gondii qPCR**	1 g Feces ▲	2-3 D ‡
	‡ These tests are performed from Monday to Friday.		

Tests Offered

CODE	TEST NAME • DESCRIPTION	SPECIMEN	TAT
SEROLOGY (OVINE AND CAPRINE)			
BV7057	**Brucella ovis Ab ELISA QC** This test is done externally.	0.5 mL serum (R)	8-14 D
BV0043	**Brucellosis - Ab APAT** CFIA form mandatory	1.0 mL serum (R)	1-2 D ‡
BV7094	**Caprine Arthritis Encephalitis Ab ELISA QC** This test is done externally.	0.2 mL serum (R)	5 D
BV7066	**CLA Caseous Lymphadenitis - Ab ELISA - US** (C. pseudotuberculosis) This test is done externally.	1.5 mL serum (R)	4 D
BV7084	***Chlamydophila* abortus - ab ELISA QC** This test is done externally.	0.5 mL serum (R)	8-14 D
BV0054	**Coxiella burnetii (Fièvre Q) Ac ELISA**	2.0 mL serum (R)	3-5 D ‡
BV0060	***Leptospira* (6 serovars) - Ab MAT -** This test is done externally.	1.0 mL serum (R)	1 W
BV0073	**M. paratuberculosis - Ab ELISA**	1.0 mL serum (R)	2-5 D ‡
BV7071	**Maedi Visna (Ovine Progressive QC** Pneumonia) - Ab ELISA This test is done externally.	0.2 mL serum (R)	2 D
BV7095	***Toxoplasma* IgG Elisa Ab - US** This test is done externally.	1.0 mL serum (R)	7 D
	‡ These tests are performed from Monday to Friday.		
UROLOGY (OVINE AND CAPRINE)			
CT760	**Urinalysis** Keep cool.	5.0 mL Fresh urine	24 h
BV1013	**Urinalysis with pathologist's comment**		
OTHER SERVICES, FEES AND DISCOUNTS (OVINE AND CAPRINE)			
BVFR03	**Cancellation fees**		
BVFR08	**Emergency fees (RUSH)**		
BVFR06	**Intermediate fees**		
CT764	**Pathologist's comments**		
BVFR01	**Pooling fees (max. 5 samples)**		
	Shipping fees NOT included (unless otherwise specified)		
TRA-0042	**(QC) Shipping fees in Quebec**		
TRA-0006	**(CA) Shipping fees in Canada**		
TRA-0003	**(US) Shipping fees in United States**		
	Cooler upon request		
	Volume discount per month • **$1000 and over = 3% • $2000 and over = 5%** • **$3000 and over = 8% • $4000 and over = 10%**		
	Prices are subject to change without notice.		

▲ When this symbol appears, see Appendix A.

Reagents and supplies for analyzers

Terms and Conditions

Shipping charges of $ 25.00 are applicable for orders of material under $500.00.
The order form is available on the site. Send your order to: order@biovet-inc.com.

Chemistry

Element DC / DCX / DC5X

- Dry slide technology
- Excellent reproducibility
- 25 individual tests and 6 panels available
- Acurate results in just minutes

CODE	TEST NAME • DESCRIPTION	SPECIMEN
TESTS INDIVIDUELS POUR ELEMENT DC / DCX / DC5X		
TRD-624	Uric Acid	24
TRD-560	Albumin	24
TRD-561	Alkaline Phosphatase	24
TRD-562	ALT (GPT)	24
TRD-625	Amylase	24
TRD-564	AST (GOT)	24
TRD-620	Total Bilirubin	24
TRD-568	Calcium	24
TRD-621	Total Cholesterol	24
TRD-569	CK	24
TRD-571	Creatinine	24
TRD-588	GGT	24
TRD-589	Glucose	24
TRD-596	LDH	24
TRD-597	Lipase	24
TRD-601	Magnesium	24
TRD-603	Phosphorus	24
TRD-622	Total Protein	24
TRD-623	Triglycerides	24
TRD-567	BUN	24
PANELS FOR ELEMENT DC / DCX / DC5X		
TRD-600	Profil - Foie (ALB, ALP, ALT, GGT, GLU, TBIL)	4
TRD-595	Profil - Reins (ALB, URÉE, CA, CREA, PHOS, TP)	4
TRD-570	Profil complet EWRAP (ALP, ALT, URÉE, CREA, GLU, TP, TBIL, ALB PHOS, CA CHOL, GGT)	6
TRD-587	Profil équin (ALB, AST, URÉE, CA, CK, CREA, GGT, GLU, LDH, PHOS, TBIL, TP)	2
TRD-606	Profil Plus EWRAP (LIP, AMY, MG, TRIG, AST, LYTES)	6
TRD-607	Profil préchirurgical/EWRAP (ALP, ALT, URÉE, CREA, GLU, TP)	12
TRD-577	Électrolytes (Na,K,Cl) avec bouteille de fluide de référence	24

Chemistry

CODE	TEST NAME • DESCRIPTION	SPECIMEN
SUPPLY FOR ELEMENT DC / DCX / DC5X		
LBI-287	**Plain wood applicator**	1000
TRD-566	**Auto Tips, DRI-CHEM 7000 Analyzer**	96
TRD-610	**Slide Cartridge, DRI-CHEM Analyzer**	2
TRD-556	**Centrifuge, DRI-CHEM Analyzer**	1
TRD-633	**Auto Mixing Cups**	50
TRD-565	**DRI-CHEM® Optics Cleaning Swabs (10/bag)**	50
TRD-574	**Electrolyte Reference Fluid, DRI-CHEM Analyzer, (8mL)**	10
TRD-576	**Electrolyte Reference Fluid, DRI-CHEM Analyzer, (8mL)**	1
TRD-575	**Paper, DRI-CHEM Analyzer**	6
TRD-602	**Slide Weight, DRI-CHEM Analyzer**	3
TRD-611	**Sample Racks (0.5 mL and 1.5 mL)**	2
TRD-608	**HESKA Chemistry System Control**	2
TRD-594	**Tip Rack, DRI-CHEM 7000 analyzer**	1
TRD-619	**Lithium Heparin Tubes (Green), DRI-CHEM Analyzer, (0.5mL)**	1
TRD-598	**Lithium Heparin Tubes (Green), DRI-CHEM Analyzer, (1.5mL)**	100
TRD-599	**Plain Tubes (Red), DRI-CHEM Analyzer (0.5mL)**	100
TRD-605	**Plain Tubes (Red), DRI-CHEM Analyzer, (1.5mL)**	100
TRD-604	**Tubes secs (Rouge), Analyseur DRI-CHEM (1.5ml)**	100

Hematology

Vet ABC Plus+

- Provides a 4-part WBC differential
- Requires as little as 10 µL of blood
- Results in 60 secondes
- Higher impedance technology

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
VET ABC PLUS+				
TRD-631	Hematology Control for Vet ABC+ (1 tube)		97.40 $	
TRD-559	ABC+ Hematology Device		773.90 $	

Element HT5

Combination laser flow cytometry, impedance and colorimetric technology ensures the most accurate results

- Provides a 4-part WBC differential
- Requires as little as 10 µL of blood
- Results in 60 secondes

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
ELEMENT HT5				
TRD-579	HT5 Veterinary Hematology Control – NORMAL (2 Vials, 3.0 mL		144.10 $	
TRD-580	Element HT5 Veterinary Hematology Control – TRI-LEVEL (12 vials)		720.50 $	
TRD-581	Element HT5, DiffLyse Sol. (300 mL)		273.60 $	
TRD-582	Element HT5, Diluent Solution (2 X 5.5L)		428.10 $	
TRD-583	Element HT5, LH Lyse Solution (90 mL)		273.60 $	

Element Coag

- Acurate results in 15 minutes
- Large 7-inches color touchscreen offers easy navigation
- Small sample size (100 µL or less)

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
ELEMENT COAG				
TRD-682	Combinaison PTT/aPTT (Canin et Félin)	12	598.80 $	49.90 $
TRD-683	Cartouche pour Fibrinogène équin	12	392.40 $	32.70 $
TRD-684	Cartouche pour Fibrinogène canin	6	241.20 $	40.20 $
TRD-685	Cartouche pour typage sanguin canin	6	433.80 $	72.30 $
TRD-686	Cartouche pour typage sanguin félin	6	433.80 $	72.30 $

Endocrinology

Element i +

- Makes T4, TSH, and cortisol, Bile Acids andprogesterone
- Technology on the cutting edge
- Results in 10 minutes

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
ELEMENT I +				
TRD-541	Element i+ Tips	96	44.16 $	0.46 $
TRD-542	Cortisol	12	423.60 $	35.30 $
TRD-702	CRP	12	430.80 $	35.90 $
TRD-543	T4	12	420.00 $	35.00 $
TRD-689	T4 Pipettes 100 µl	12	688.80 $	57.40 $
TRD-538	Progesterone	12	657.60 $	54.80 $
TRD-652	Pipettes 100 µl T4	3	103.50 $	

Element i

- Makes T4, TSH, and cortisol, Bile Acids andprogesterone
- Technology on the cutting edge
- Results in 10 minutes

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
ELEMENT I				
TRD-648	Bile acids	10	$335.00	$33.50
TRD-635	Cortisol	10	$353.00	$35.30
TRD-637	T4	10	$350.00	$35.00
TRD-636	TSH	10	$574.00	$57.40

Electrolytes and Blood Gases

Element POC

- Critical chemistry, metabolic parameters, electrolytes, hematocrit and blood gas
- Results in just 35 seconds

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
ELEMENT I				
TRD-586	Element POC Test cards	10	$329.00	$32.90
TRD-585	Element POC Test cards	25	$795.00	$31.80

Others

Eurolyser Solo/Cube

- 3 easy steps use
- Requires only 20 µL sample
- Acurate results in a few minutes

N° BIOVET	NOM DU PRODUIT	PAQUET	PRIX	INDIVIDUEL
EUROLYSER SOLO/CUBE				
TRD-612	cCRP	16	$438.40	$27.40
TRD-613	Fibrinogen	16	$438.40	$27.40
TRD-638	Fructosamin	6	$126.00	$21.00
TRD-614	Fructosamin	16	$316.80	$19.80
TRD-679	Lactate	6	$104.40	$17.40
TRD-647	Pancreas specific Lipase test kit	6	$174.00	$29.00
TRD-615	Pancreas specific Lipase test kit	16	$425.60	$26.60
TRD-641	Phenobarbital	6	$210.00	$35.00
TRD-680	Progesterone	6	$319.20	$53.20
TRD-616	SAA	6	$310.80	$51.80
TRD-690	SAA Control	6	$235.20	$39.20
TRD-590	SDMA	6	$170.40	$28.40
TRD-591	SDMA	16	$422.40	$26.40
TRD-581	Bile Acids	6	$209.40	$34.90
TRD-639	T4 test kit	6	$516.80	$32.30
TRD-617	T4 test kit	16	$473.60	$29.60

Appendix A

Guidelines for storing and shipping samples to the laboratory

The way samples are stored between collection and arrival at the laboratory is very important both to facilitate their processing and to ensure the validity of the analyzes.

Below you will find guidelines for some of the most common samples that are submitted to the laboratory for bacteriological or PCR testing.

Do not hesitate to contact us for more information.

Milk for bacteriological or PCR testing

- Samples should be placed in sterile tightly closed containers, with screw caps and sealed.
- **By no means should "containers" such as plastic bags, examination gloves, Vacutainer tubes or others be used.**
- Samples should be refrigerated as quickly as possible(it is important not to freeze them!) and should be stored between 2 and 8 °C.
- They must arrive at the laboratory as soon as possible(ideally within 48 hours after collection).

Feces for bacteriological or PCR testing

- Samples should be placed in tightly closed containers(jars or flasks with screw caps available at the laboratory if required).
- By no means should "containers" such as plastic bags,examination gloves, Vacutainer tubes or others be used.
- If the samples were collected with swabs, it is recommended that they be placed in a solid (agar) or liquid transport medium (eg solid or liquid medium).
- However, for samples for PCR testing, it is important that the transport medium is liquid (no transport media agar!)
- Samples should be refrigerated as quickly as possible(it is important not to freeze them!) and they should arrive at the laboratory within 72 hours after collection.

Feces for parasitology

- Samples should be placed in tightly closed containers(jars or flasks with screw caps available at the laboratory if required).
- By no means should "containers" such as plastic bags, examination gloves or others be used.
- Samples should be refrigerated as quickly as possible(it is important not to freeze them!) and they should arrive at the laboratory within 72 hours after collection.

Nasopharyngeal swabs for bacteriological testing

- The ends of swabs should be placed in a solid (agar) or liquid transport medium (eg solid or liquid medium).
- Samples should be refrigerated as quickly as possible and should be stored between 2 and 8 °C (it is important not to freeze them!).
- They must arrive at the laboratory as soon as possible(ideally within 48 hours after collection).
- Note that these samples can not be used for PCR testing.

Nasopharyngeal swabs for PCR testing

- The ends of swabs should be placed in sterile containers with 1 mL of buffered saline (PBS) and sealed.
- It is recommended to use tubes with screw caps(available at the laboratory if required).
- Samples should be refrigerated as quickly as possible and stored at 2-8 ° C.
- They must arrive at the laboratory as soon as possible(ideally within 72 hours after harvest).
- Note that these swabs cannot be used for bacteriological testing.

Appendix B

Aerobic or Anaerobic culture: how to choose?

We regularly receive questions about what type of culture to choose (aerobic or anaerobic?) and the samples to be submitted. The appropriate selection of samples and the type of culture is crucial for the culture to obtain a significant result.

Anaerobic germs, by definition, come from oxygen-poor, moisture-rich sites. To successfully grow these germs in the laboratory, it is essential that samples are not exposed to air and retain moisture.

The conditions in which anaerobic germs are likely to be involved must include:

- Tissue necrosis
- Deep abscesses
- Bite wounds
- Wet pleurisy
- Aspiration pneumonia
- Metrits and pyometers
- Oral diseases
- Joint diseases

Appropriate samples for researching anaerobic germs include:

- Fluids (pleural, peritoneal, joint, or cerebrospinal)
- Deep tissues (muscles, liver, etc.)
- Intestinal content

On the other hand, samples that are inappropriate for this type of research include, among others:

- Vaginal swabs
- Airway swabs and aspirations
- Skin swabs or superficial wounds
- Urine (unless taken by bladder puncture)

The following rules must apply for the collection, and retention of samples for anaerobic germ research:

- **Fluids:** If they are taken by aspiration with a syringe, the air must be removed from the barrel of the syringe beforehand. The fluids must be placed in sterile tubes without additives, and the tubes must be filled entirely so as not to leave any air. The tubes must be tightly sealed. The syringe may also be sent to the laboratory after removing the needle.
- **Swabs:** Swabs must be placed in an appropriate anaerobic transport medium, such as those available at Biovet.
- In all cases, the samples must be stored between 4 °C and 8 °C and reach the laboratory within 48 hours.

Reference

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www.ksvdl.org/resources/news/diagnostic_insights/january2019/aeorbic-anaerobic-culture.html

Appendix C

Litter profile

It is important to submit a representative sample of the litter to be analyzed. To do this, it is necessaryto proceed as follows:

- Take ten handfuls of litter to be analyzed from ten different places
- Place them in a clean bucket
- Mix well
- Take about two handfuls of the mixture
- Put them in a sealable “Ziploc” or “Whirl-pac” plastic bag.
- Keep the bag refrigerated (4-8°C) and send it to the
- laboratory within 24 to 48 hours.

*Note that there are no universal “guidelines” for interpreting litter culture results. There are no standards for certainly linking certain levels of bacteria with an increased risk of mastitis. However, litter cultures can be useful for assessing the microbiological quality of “clean” litter, comparing recycled litter before and after “treatment” or assessing the “management” of litter. Il est vivement recommandé de discuter avec votre vétérinaire de l’utilisation des résultats avant d’envoyer des échantillons au laboratoire.

It is strongly recommended that you and your veterinarian discuss the use of the results before sending samples to the laboratory.

The Litter Profile includes the following tests:

- Aerobic Colonies count (mesophiles/total count)
- Total coliform count/Escherichia coli
- Staphylococcus spp count.
- Streptococcus spp. count
- Klebsiella spp. count

Wipe culture

The wipe cultures used in the preparation of udders for milking are produced to assess the effectiveness of cleaning and/or disinfection procedures or their storage conditions.

The wipes to be analyzed should be placed in sealable “Ziploc” or “Whirl-pac” plastic bags. The bags must be refrigerated (4°C to 8°C) and sent to the laboratory within 24 to 48 hours.

*Note that there are no universal “guidelines” for interpreting wipe culture results. To assess the storage conditions of the wipes, you can compare a freshly cleaned wipe to another that has been stored for a period of time.

The cultures is produced individually to order. A simple count of mesophilic germs can already provide interesting information. If necessary, a more complete profile can be created including:

- Aerobic Colonies count (mesophiles/total count)
- Total coliform count/ Escherichia coli
- Staphylococcus spp count.
- Streptococcus spp. count
- Klebsiella spp count.

References

Laboratory for udder health. College of Veterinary medicine. University of Minnesota. www.vdl.umn.edu/services-fees/udder-health-mastitis.

Appendix D

Why choose our service rather than do the milk analyses yourself?

1. **Pickup service**
   UA free pick-up service at the clinic is available in most regions. Samples are kept at an optimum temperature until the laboratory.
2. **Quick processing of samples**
   The laboratory is operational 7 days a week and from 8:00 a.m. to midnight (3:30 p.m. on weekends). Samples are seeded as soon as they arrive at the laboratory.
3. **Devices checked and calibrated**
   All our devices (incubators, Maldi Tof, etc.) are checked and calibrated regularly.
4. **Non-selective culture**
   We use a rich, non-selective culture medium that allows the growth of the majority of mammary infection agents (e.g. bacteria except Mycoplasma; yeasts, Prototheca).
5. **Double culture**
   For mastitis cases, we culture "fresh" milk as well as milk that has been incubated at 35°C for a few hours. Cultures are systematically read after 1 and 2 days of incubation.
6. **Standardized results**
   The results of "fresh" milk cultures (direct seeding) are expressed in "colony-forming units per mL" (cfu/mL). The results for milk previously incubated are indicated by "presence" or "absence".
7. **Ultra-precision identification**
   The microorganisms are identified very precisely using a Brüker Maldi Tof device. Maldi Tof technology identifies germs that were difficult to identify otherwise (Negative coagulase Staphylococci)
8. **Real-time results**
   A preliminary report for Staphylococcus and Enterobacteriaceae (E. coli, Klebsiella spp) is sent the day after the samples were received. The final report is sent no more than 3 days later. The results are available in real time via the web (Bionet).
9. **Quality of analysis**
   The tests are performed by qualified technicians supervised by a certified microbiologist in accordance with the recommendations of the National Mastitis Council.

For more information,
feel free to contact us.

Appendix E

New approach to the diagnosis of respiratory infections in cattle

We are in the winter with its respiratory problems. This year, we would like to offer you new diagnostic possibilities. Indeed, it appeared that you are mainly interested in the diagnosis by PCR of viral infections and by PCR or culture for bacterial infections. To reconcile these approaches, we have created a new profile, called "respiratory viral profile PLUS" including the detection of Mycoplasma bovis in addition to that of viruses. So, here are the 4 profiles that are now available to you:

1. **Profil respiratoire viral:** inclut la détection de BoHV1, BCoCV, BRSV, PI3, BVDV et Influenza D
2. **Profil respiratoire bactérien:** inclut la détection de Mannheimia haemolytica, Pasteurella multocida, Histophilus somni, Trueperella pyogenes et M. bovis
3. **Profil respiratoire complet:** inclut les profils respiratoires viral et bactérien
4. **Profil respiratoire viral PLUS:** inclut le profil respiratoire viral + la détection de **Mycoplasma bovis**

In addition, in order to reduce costs while maintaining good analytical sensitivity while improving diagnostic sensitivity, we suggest you resort to the use of pooled samples for the "viral respiratory profile" and "viral respiratory profile PLUS" (not for the "bacteria respiratory profile").

Indeed, when it comes to determining whether a given contagious agent (virus, mycoplasmas) is present or not in a group of animals, it is not necessary to precisely determine the status of each of the animals concerned.

Additionally, if the individual samples are representative of the condition and the affected animals, most of these should be moderately to strongly positive.

However, the sensitivity of real-time PCR (qPCR) is such that if a pool consists of a moderately positive sample and 3 or 4 negative samples, the result of the test performed on the pool will be relatively unaffected.

Example: a pool consisting of a sample with a Ct of 28 (moderate load) and 3 or 4 negative samples (Ct> 38) will give a Ct of around 30-31.

In addition, you can request a bacteriological examination completed by one or more antibiogram (s) for Mannheimia haemolytica, Pasteurella multocida and Histophilus somni.

Taking samples

Material required

1. Paper towel or rag
2. 30 "double sheath swabs (available at Biovet: order@biovet-inc.com)
3. Tubes with Amies liquid transport medium (1 mL in 10 mL tube) suitable for bacteriological examinations and PCR (available from Biovet: order@biovet-inc.com)
4. Pair of scissors
5. Indelible marker
6. Analysis request form
7. Cooler with ice packs

Procedure

1. Select 3 to 5 animals representative of the condition and **at the onset of clinical signs (less than 2-3 days).**
2. Perform deep nasopharyngeal swabs on the selected animals (1 swab / animal)
   - Clean the orifice of the nasal cavities with paper towels or a cloth to limit contamination of the swabs
   - Swab the nasopharyngeal cavities as described in this video: https://www.youtube.com/watch?v=WB 3luk1nQjY
3. Cut the swab shaft to the appropriate length to allow it to be placed in a tube of transport medium.
4. If necessary, identify the tube with the animal's #
5. Store samples in refrigerator (4-8 °C)
6. Complete a request by specifying the required tests
7. Send everything to the laboratory within 24 to 48 hours.

For more information,
feel free to contact us.

Appendix F

List of antibiotics (sensitivity)

ANTIBIOTICS – BOVINE AND SMALL RUMINANTS	RESPIRATORY
Amoxycilline	
Ampicilline	●
Ceftiofur	●
Cefalotine	
Cloxacilline	
Enrofloxacine	●
Erythromycine	●
Florfenicol	●
Gentamycine	
Neomycine	
Penicilline G (Gram+ seulement)	
Penicilline / Novobiocine	
Pirlimycine HCl	
Polymyxine B	
Spectinomycine	●
*Strep*tomycine	
Sulphamethoxazole / Trimethoprim	●
Tetracycline	●
Tulathromycine	●

OTHER ANTIBIOTICS AVAILABLE

Amikacine	Doxycycline	Ofloxacin
Amoxicillin / clavulanic acid	Fusidic acid	Oxacilline (Staph seulement)
Apramycine	Gamithromycine	Piperacillin
Azitrhomycin	Imipenem	Pradofloxacin
Bacitracin	Kanamycin	Rifampicine
Cefovecin	Lincomycine	Sulbactam / Ampicilline
Cefoxitin	Marbofloxacin	Sulphafurazole / Sulfisoxazole
Cefpodoxime	Meropenem	Sulphamethoxazole
Ceftazidime	Metronidazole	Ticarcillin (Gram- only)
Cephalexin	Moxifloxacin	Tildipirosine
Cephazolin	Mupirocin	Tilmicosine
Chloramphenicol	Nitrofurantoin	Tobramycin
Ciprofloxacin	Norfloxacin	
Clindamycin	Novobiocin	

Appendix G

Detection of mammary staphylococcal infections in primiparous

There is a growing interest in the field to detect and treat Staphylococcus aureus (AS) breast infections in primiparous (bulls) at calving and we were recently asked to offer a special bacteriological examination service for the milk of these animals.

To do this, it can be tempting to use the Petrifilms Staph medium. Express from 3MTM, to start by examining pools of the 4 districts and then to examine individually the samples in which SA aureus would have been detected.

Our experience with Petrifilms Staph. Express has shown us that it is not always easy to differentiate AS from other staphylococci. However, in bulls, infections with staphylococci other than AS (in particular so-called coagulase-negative staphylococci, CNS) are common. Therefore, the risk of confusion between SA and CSN with Petrifilms Staph. Express is not negligible.

In addition, the pathogenic role of CNS in breast infections is currently unclear. Some species would affect milk quality (increased somatic cells) and possibly even subsequent milk production. However, at this stage, it does not seem justified to treat sub-clinical infections with CNS. In short, it is important not to confuse SA and CNS in order to avoid unnecessary treatments.

Therefore, we decided to proceed by examining the 4 quarters individually, to use conventional isolation media (blood agars) and to identify isolates according to the usual methods (including the coagulase test). In addition, we will use an inoculum of 500 µL instead of the usual 10 µL. Finally, we will report the presence of both SA and CNS. On the other hand, the possible presence of other germs will not be reported. Also note that the milks will not be frozen or incubated before being seeded (you are free to freeze the samples before sending them to us).

We are convinced that this approach will offer a better sensitivity than the standard method while ensuring that SA from CNS are definitely differentiated unlike Staph Petrifilms. Express.

For more information,
feel free to contact us.

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Appendix H

About the search for salmonella in cattle

Salmonella spp infections are a major concern for both herd and public health

In cattle, salmonellosis can be caused by different serotypes such as Typhimurium, Dublin, Newport, Montevideo, Muenster, Cerro, Muenchen, etc. (Gutema et al, 2019, Hong et al, 2016)

Typhimurium serotype is most common in many species.

Dublin serotype is particularly suitable for cattle in which, unlike other serotypes, it causes persistent infections.

S. Dublin infections are particularly severe in humans.

S. Dublin strains found in Quebec are generally resistant to several families of antibiotics (multidrug-resistant strains).

Biovet provides you with diagnostic tools to detect salmonella from different samples (feces, tissues, milk, blood, food, environment).

We advocate a hybrid approach consisting of combining selective enrichment (bacteriology) and real-time PCR (Goodman et al, 2017). After selective enrichment, the presence of salmonella is checked by real-time PCR.

This approach is faster and more sensitive than the bacteriological method alone.

In cattle, we currently offer 2 different PCRs:

- **qPCR 1-plex Salmonella spp**: detects the presence of all salmonella without specifying a serotype
- **qPCR 3-plex Salmonella spp + S. Typhimurium + S. Dublin**: detects the presence of salmonella and determines whether it is Typhimurium or Dublin serotype (or not)

Given the importance of typhimurium and Dublin serotypes, we strongly recommend the use of 3-plex qPCR which allows you to quickly know if you are dealing with a Typhimurium, Dublin or other serotype.

In the event of a positive PCR, salmonella isolation can be continued to obtain an isolate and its susceptibility to different antimicrobials can be determined using the agar method

If the PCR is negative for Typhimurium and Dublin, then it is also possible to determine the serotype involved from the isolate.

In addition, we continue to offer salmonella research in “standard bacteriology”.

For further information,
feel free to contact us.

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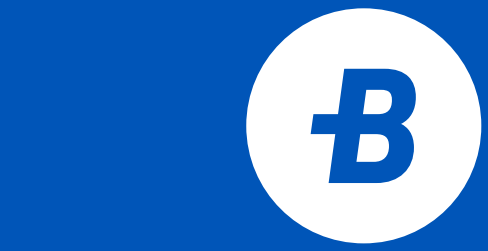

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