



Instructions for Sample Submission - Diagnostics Real-time PCR

Real-time PCR Research and Diagnostics Core Facility
Department of Medicine & Epidemiology
School of Veterinary Medicine
3110 Tupper Hall
University of California, Davis
Davis, CA 95616
Website: <http://www.vetmed.ucdavis.edu/vme/taqmanservice/>

Phone: 530.752.7991
Fax: 530.754.6862

Please include a sample submission form with each shipment.

Sample collection information:

1. Keep sample cool at all times to preserve sample integrity and accuracy of PCR testing.
Write patient name on tube.
2. **Whole blood** – 2 ml EDTA (purple top) tube: ****DO NOT SEND SERUM****
3. **Cerebral Spinal Fluid (CSF)** – at least 0.5ml in EDTA (purple top) tube
4. **Aqueous fluid** – at least 0.5ml in EDTA (purple top) tube
5. **Tissue** – 25-100 mg of fresh or frozen tissue with **no** preservative
6. **Tracheal wash** – 5 ml in EDTA (purple top) tube
7. **Joint tap** (synovial fluid) – at least 0.5 ml in EDTA (purple top) tube
8. **Swabs** – non-culture swab in a red top tube or EDTA (purple top) tube
9. **Feces** – fresh as possible, 1 fecal cup or 1 stool collection tube (fecal swabs okay)
10. **Urine** – 5-10 ml in EDTA (purple top) tube
11. **Pericardial fluid** – at least 0.5ml in EDTA (purple top) tube
12. **Ascites** – EDTA (purple top) tube
13. **Bacterial culture** – bacterial cells with **no** media in a micro-centrifuge tube

Shipping Instructions:

1. All shipments must comply with the International Air Transport Association (IATA) Dangerous Goods regulations. Please consult the IATA website <http://www.iata.org> or the FedEx Dangerous Goods/Hazardous Materials Hotline at 800.463.3339 (press 81) for further information.
2. Send on ice in a styrofoam container (no ice needed for fixed tissues)
3. **Ship overnight** (Do not ship on Friday, the laboratory is not open on the weekends to receive samples)
4. Use FedEx or other express courier (**DO NOT** use US Mail)

Shipping address:

Real-time PCR Research and Diagnostics Core Facility
3110 Tupper Hall
One Shields Avenue
UC Davis, SVM
Davis, CA 95616-8737
Tel: 530.752.7991



Diagnostic Real-time PCR Sample Submission Form

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University of California, Davis
Davis, CA 95616
<http://www.vetmed.ucdavis.edu/vme/taqmanservice>

Phone: 530.752.7991
Fax: 530.754.6862

Date: _____

Veterinarian: _____

Clinic or Hospital: _____

Address (billing): _____

Phone: _____

Fax: _____

Your Federal Tax ID (FTID) #: _____

(All first time customers must provide valid FTID #; samples can not be processed otherwise)

Patient:	Owner:	Species:	Sample Type*	Test Requested
1.				
Clinical signs:				
2.				
Clinical signs:				
3.				
Clinical signs:				
4.				
Clinical signs:				
5.				
Clinical signs:				

(For more samples please use back side)

***If you want to combine (pool) multiple sample types to save costs, please indicate above .**

Comments: _____

Real-time PCR Assays

Abbreviation	Price	Bacteria	Sample Type
bc:A.phago	\$42.00	<i>Anaplasma phagocytophilum</i>	Tick, whole blood, spleen, liver
bc:A.platys	\$42.00	<i>Anaplasma platys</i>	Tick, whole blood
bc:Bart	\$42.00	<i>Bartonella spp</i> (including <i>henselae</i>)	Whole blood, tissue
bc:B.burg	\$42.00	<i>Borrelia burgdorferi</i> (Lyme Disease)	Tick, synovial fluid, skin biopsy, CSF, urine, whole blood
bc:Bord	\$42.00	<i>Bordetella bronchiseptica</i>	Oropharyngeal swab, nasal swab
bc:Chlam	\$42.00	<i>Chlamydia felis/psittaci</i>	Ocular swab, cloacal/choanal swab, placenta, feces, whole blood, liver, spleen
CD 16AB	\$57.00	<i>Clostridium difficile</i> Toxins A and B (quantitative load)	Feces, bacterial isolate, colon
bc:CD PLP	\$42.00	<i>Corynebacterium pseudotuberculosis</i> (Pigeon Fever)	Whole blood, swab, skin biopsy, soil
bc:E.canis	\$42.00	<i>Ehrlichia canis</i>	Whole blood, tick, feces, bone marrow
bc:F.tul	\$42.00	<i>Francisella tularensis</i>	Whole blood, soil, ticks
bc:L.intra	\$42.00	<i>Lawsonia intracellularis</i>	Feces, whole blood, illum, tonsillar tissue
bc:Lepto	\$42.00	<i>Leptospira spp</i>	Urine, CSF, whole blood
bc:L.mono	\$42.00	<i>Listeria monocytogenes</i>	CSF, whole blood, feces, placenta
bc:MAC	\$42.00	<i>Mycobacterium Avium Complex</i>	Feces, colon, spleen, bone marrow, lymph node, liver, kidney
bc:MTC	\$42.00	<i>Mycobacterium spp</i>	Feces, liver, spleen, lung, kidney, bone marrow, lymph node, colon
bc:CD Large	\$42.00	<i>Mycoplasma haemofelis and haemocanis (Haemobartonella)</i>	Whole blood
bc:M.felis	\$42.00	<i>Mycoplasma felis</i>	Tissue only
bc:M.lamae	\$42.00	<i>Mycoplasma haemolamae</i>	Whole blood
bc:Cat small	\$42.00	<i>Mycoplasma haemominutum</i> (cat small form)	Whole blood
bc:Dog small	\$42.00	<i>Mycoplasma haemotoparvum</i> (dog small form)	Whole blood
bc:M.tur	\$42.00	<i>Mycoplasma turicensis</i> (Swiss form)	Whole blood
bc:N.hel	\$42.00	<i>Neorickettsia helminthoeca</i> (Salmon poisoning)	Lymph node aspirates, feces, spleen, liver
bc:PHF	1 sample \$42.00 2 samples \$65.00	<i>Neorickettsia risticii</i> (Potomac Horse Fever) Both samples must be from same animal	Whole blood, feces, bone marrow, tissue
bc:R.equi	\$42.00	<i>Rhodococcus equi</i>	Tracheal swab, tracheal wash, feces
bc:rickrick	\$42.00	<i>Rickettsia spp</i> (including RMSF)	Tick, whole blood
bc:SalmA	\$42.00	<i>Salmonella spp</i>	Feces, bile, environmental swabs
bc:S.equi	\$42.00	<i>Streptococcus equi</i>	Guttural pouch lavage, nasal swab

Abbreviation	Price	Fungi	Sample Type
fu:A.fumi	\$42.00	<i>Aspergillus fumigatus</i>	Fluids or tissues
fu:C.albicans	\$42.00	<i>Candida albicans</i>	Fluids or tissues
fu:C.immitis	\$42.00	<i>Coccidioides immitis</i>	Fluids or tissues
fu:C.neo	\$42.00	<i>Cryptococcus neoformans</i>	Fluids or tissues
fu:M.canis	\$42.00	<i>Microsporium canis</i>	Fluids or tissues
fu:T.ment	\$42.00	<i>Trichophyton mentagrophytes</i>	Fluids or tissues

Real-time PCR Assays

Abbreviation	Price	Parasites	Sample Type
pc:B.diver	\$42.00	<i>Babesia</i> spp (including canis, divergens, gibsoni)	Tick, whole blood
pc:B.caballi	\$42.00	<i>Babesia caballi</i>	Whole blood
pc:Crypto.limoB	\$42.00	<i>Cryptosporidium</i> spp	Feces
pc:C.felis	\$42.00	<i>Cryptosporidium felis</i>	Feces
pc:Giardia	\$42.00	<i>Giardia</i> spp (<i>lamblia</i> and <i>intestinalis</i>)	Feces, GI tract tissue
pc:Neosp	\$42.00	<i>Neospora hughesi</i> and <i>caninum</i>	Aborted material, brain, heart
pc:Leish	\$42.00	<i>Leishmania</i>	Whole blood
pc:S.neuro	\$42.00	<i>Sarcocystis neurona</i>	Whole blood, brain
pc:Tox18	\$42.00	<i>Toxoplasma gondii</i>	Whole blood, CSF, feces, brain, placenta
pc:T.equi	\$42.00	<i>Theileria equi</i> (Formerly <i>Babesia equi</i>)	Whole blood
pc:T.foetus	\$42.00	<i>Tritrichomonas foetus</i>	Feces, GI tract tissue

Abbreviation	Price	Virus	Sample Type
v:BLV	\$42.00	Bovine Leukemia Virus	Whole blood, milk
v:BPV	\$42.00	Bovine Papillomavirus 1 and 2	Skin biopsy, sarcoid swabs
v:CAV2	\$42.00	Canine Adenovirus 2	Nasal swab, ocular swab, whole blood
v:CRCVS	\$57.00	Canine Respiratory Coronavirus	Nasal swab, tracheal swab, lung tissue
v:CDV	\$57.00	Canine Distemper Virus	CSF, ocular/nasal swab, whole blood, tissue
v:CHV	\$42.00	Canine Herpes Virus	Whole blood, ocular/nasal swab, lung, liver
v:CIV	\$57.00	Canine Influenza Virus	Nasal swab or wash, tracheal swab, guttural pouch lavage, lung tissue
v:CPIV	\$57.00	Canine Parainfluenza Virus	Ocular/nasal swab, trachea
v:COPV	\$42.00	Canine Oral Papillomavirus	Mucosal biopsies, including lesions
v:CPV1	\$42.00	Canine Parvovirus 1 (Minute Virus)	Feces, blood, GI tissue
v:CParV2	\$42.00	Canine Parvovirus 2	Feces, GI tissue
v:EAV	\$57.00	Equine Arteritis Virus	Nasal swab, conjunctival swab, whole blood, placenta
EHV1 DNA	1 sample \$57.00 2 samples \$80.00	Equine Herpesvirus 1 (quantitative load) and genotype (neurotropic, and non-neurotropic) Both samples must be from same animal	Nasal swab, whole blood, tracheal wash, CSF, marrow, placenta, lung, liver
EHV1 RNA	Please inquire	Equine Herpesvirus 1 transcript; presence or absence of active replication Only available when EHV1 DNA is positive	Nasal swab, whole blood, tracheal wash, CSF, marrow, placenta, lung, liver
v:EHV4	\$42.00	Equine Herpesvirus 4	Nasal swab, whole blood, tracheal lavage, lung, liver
v:EIV A	\$57.00	Equine Influenza A	Whole blood, nasal swab, lung
v:FCV	\$57.00	Feline Calicivirus	Oropharyngeal swab, whole blood, lung, nasal swab
v:FCoV	\$57.00	Feline Corona Virus (FCoV) AKA: FIP	Peritoneal fluid, whole blood, spleen, kidney, lung, feces
v:FHV1	\$42.00	Feline Herpesvirus 1	Ocular swab, whole blood, oral swab
v:FeLV	\$42.00	Feline Leukemia Virus (FeLV)	Whole blood, tissue
v:FPLV	\$42.00	Feline Parvovirus (Panleukopenia)	Whole blood, lymphatic tissues
v:KHV	\$40.00*	Koi Herpesvirus (quantitative load) *reduced price due to grant	Whole blood, kidney, gill, tissue
v:WNV	\$57.00	West Nile Virus	CSF, whole blood, brain, spinal cord, choanal swab, liver, kidney, spleen

Real-time PCR Panels

Abbreviation	Price	Canine	Sample Type
Blood Donor: Canine	\$125.00	Blood Transfusion Panel: <i>A. phagocytophilum</i> , <i>E. canis</i> , <i>A. platys</i> , <i>Rickettsia</i> spp, <i>Leishmania</i> , <i>Babesia</i> spp, <i>M. haemocanis</i> , <i>Bartonella</i> spp	Whole blood
Neuro: Canine 1	\$91.00	Neurological I Panel: CDV, <i>N. hughesi</i> and <i>caninum</i> , <i>Toxoplasma gondii</i> , <i>B. burgdorferi</i> * WHOLE BLOOD NOT RECOMMENDED FOR <i>B. burgdorferi</i>, and <i>N. hughesi</i> and <i>caninum</i>	CSF, whole blood*
Neuro: Canine 2 (Encephalitis)	\$125.00	Neurological II Panel: CDV, West Nile Virus, <i>N. hughesi</i> and <i>caninum</i> , <i>Toxoplasma gondii</i> , <i>A. phagocytophilum</i> , <i>Rickettsia</i> spp, <i>E. canis</i> , <i>B. burgdorferi</i> * WHOLE BLOOD NOT RECOMMENDED FOR <i>B. burgdorferi</i>, and <i>N. hughesi</i> and <i>caninum</i>	CSF, whole blood*
Resp: Canine	\$91.00	Respiratory Panel: Canine Influenza Virus (H3N8), <i>B. bronchiseptica</i> , CAV2, CDV, CHV, Parainfluenza, Canine Respiratory Coronavirus	Nasal swab or wash, tracheal swab, guttural pouch lavage, lung
Vector-Borne: Canine	\$91.00	Vector-Borne Disease Panel: <i>A. phagocytophilum</i> , <i>A. platys</i> , <i>Bartonella</i> spp, <i>E. canis</i> , <i>Rickettsia</i> spp, <i>B. burgdorferi</i> * WHOLE BLOOD NOT RECOMMENDED FOR <i>B. burgdorferi</i>	Tick, whole blood*
GI/Diarrhea: Canine	\$91.00	GI/Diarrhea Panel: <i>C. difficile</i> Toxins A and B (quantitative load), <i>Cryptosporidium</i> spp, <i>Salmonella</i> spp, <i>Giardia</i> spp, Canine Parvovirus 2	Feces

Abbreviation	Price	Equine	Sample Type
Neuro: Equine	\$72.00-91.00	Neurological Panel: EHV1 (quantitative load) and genotype (neurotropic, and non-neurotropic), West Nile Virus, <i>N. hughesi</i> and <i>caninum</i> , <i>S. neurona</i> * IF WHOLE BLOOD SUBMITTED ONLY EHV1 AND WNV WILL BE TESTED (\$71)	CSF
Resp: Equine	\$91.00	Respiratory Panel: EHV1 (quantitative load) and genotype (neurotropic, and non-neurotropic), EAV, Influenza A, EHV4, <i>S. equi</i>	Nasal swab or wash, tracheal swab, guttural pouch lavage, lung
Vector-Borne: Equine	\$91.00	Vector-Borne Panel: <i>A. phagocytophilum</i> , <i>A. platys</i> , <i>Bartonella</i> spp, <i>N. risticii</i> , <i>Rickettsia</i> spp, <i>B. burgdorferi</i> * WHOLE BLOOD NOT RECOMMENDED FOR <i>B. burgdorferi</i>	Tick, whole blood*
GI/Diarrhea: Equine	\$91.00	GI/Diarrhea Panel: <i>C. difficile</i> Toxins A and B (quantitative load), <i>L. intracellularis</i> , <i>N. risticii</i> , <i>Salmonella</i> spp	Feces

Abbreviation	Price	Feline	Sample Type
Blood Donor: Feline	\$91.00	Blood Transfusion Panel: <i>M. haemofelis</i> , <i>M. haemominutum</i> , <i>M. turicensis</i> , FeLV, FCoV, <i>Bartonella</i> spp	Whole blood
Neuro: Feline	\$91.00	Neurological Panel: <i>Toxoplasma gondii</i> , FCoV, FeLV	CSF, whole blood
Resp: Feline	\$91.00	Respiratory Panel: <i>B. bronchiseptica</i> , <i>Chlamydia felis</i> , FCV, FHV1	Nasal swab or wash, tracheal swab, guttural pouch lavage, lung
Vector-Borne: Feline	\$91.00	Vector-Borne Disease Panel: <i>A. phagocytophilum</i> , <i>A. platys</i> , <i>Bartonella</i> spp, <i>Rickettsia</i> spp	Tick, whole blood
GI/Diarrhea: Feline	\$91.00	GI/Diarrhea Panel: <i>C. difficile</i> Toxins A and B (quantitative load), <i>Cryptosporidium</i> spp, <i>Salmonella</i> spp, <i>Giardia</i> spp, FCoV, Feline Parvovirus (Panleukopenia), Canine Parvovirus 2	Feces
Immune: Feline	\$91.00	Feline Immune Panel: FeLV, Feline Parvovirus (Panleukopenia), Canine Parvovirus 2, <i>Bartonella</i> spp	Whole blood, spleen
Conjunctivitis: Feline	\$91.00	Ocular Conjunctivitis Panel: <i>Chlamydia felis</i> , Feline Calicivirus, FHV1	Corneal swab
Uveitis: Feline	\$91.00	Ocular Uveitis Panel: <i>Bartonella</i> spp, <i>Toxoplasma gondii</i> , FHV1, FeLV, FCoV	Aqueous humor

Abbreviation	Price	Fungus	Sample Type
Breakout: Fungus	\$91.00	Fungus Breakout Panel: <i>Aspergillus fumigatus</i> , <i>Candida albicans</i> , <i>Cryptococcus neoformans</i> , <i>Microsporium canis</i> , <i>Trichophyton mentagrophytes</i> , <i>Coccidioides immitis</i>	Fluid, tissue