

Rodent Health Surveillance Team Tests and Panels

Table 1: Supplies and Testing

Sample Type	CRL Supplies Needed	IDEXX Supplies Needed
Serology	HemaTip or EZ-spot card	Opti-spot card
PCR – fecal sample (mice)	2 ml tube	2 ml tube
PCR – fecal sample (rats, guinea pigs, rabbits)	15 ml tube or 50 ml tube	15 – 17 ml tube
PCR – body / perianal swab	Sticky swab, 5 ml tube	Flocked swab, 15 – 17 ml tube
PCR – oral swab	Oral swab, 5 ml tube	Oral swab, 17 ml tube
PCR – environmental swab	Sticky swab, 5 ml tube	Flocked swab, 15 – 17 ml tube
PCR – environmental filter	Filter media, 50 ml tube	

Table 2: Individual Tests

Test	Test Type	Samples for CRL	Samples for IDEXX
Pinworms	PCR	Fecal sample	Fecal sample
Helicobacter	PCR	Fecal sample	Fecal sample
Fur Mites	PCR	Body swab	Body swab
C. bovis	PCR	Pelt swab and fecal sample	Pelt swab and fecal sample
Any pathogen	Environmental PCR	Plenum/Cage swab or filter media	Plenum or cage swab

Table 3: Mice and Deer Mice

CRL Panel Name (samples needed)	U of M Mouse Surveillance PRIA (fecal sample, oral swab, body / perianal swab)	U Michigan Modified Mouse Enteric PRIA (fecal sample, perianal swab)	U Michigan MouseLong Panel (100ul centrifuged blood, HemaTip, or EZ-spot card)	U of M Mouse Short Panel (100ul centrifuged blood, HemaTip, or EZ-spot card)	U Michigan Modified Mouse Prevalent PRIA (surface swabs)
IDEXX Panel Name (samples needed)	UMich Mouse PCRPanel Quarantine (fecal sample, oral swab, body swab)	U Mich Mouse Enteric Opti-XXpress (fecal sample)	VA Mouse Long Serology Panel (100ul centrifuged blood or Opti-spot card)	Mouse Short Panel (100ul centrifuged blood or Opti-spot card)	
Used For	Quarantine	Surveillance: Q1, Q3	Surveillance: Q2, Q4		Pilot Study
Test Type	PCR	PCR	MFIA	MFIA	PCR
Ectro	X		X	X	
EDIM (rota, Rota-A, MRV)	X	X	X	X	X
GDVII (TMEV)	X		X		
Hanta	X				
LCMV	X		X		
MAV (MAD, MadV)	X		X		
MHV	X	X	X	X	X
Mpui	X		X		
MPV	X	X	X	X	X
MVM	X	X	X	X	X
NS-1			X	X	

Poly	X		X		
PVM	X		X		
REO	X		X		
Sendai	X		X		
Pinworms	X	X			X
Fur mites	X				X

Table 4: Rats

CRL Panel Name (samples needed)	U of M Rat Surveillance PRIA (fecal sample, oral swab, body / perianal swab)	U Michigan MFIA Rat Assessment Panel (HemaTip, 100ul centrifuged blood or EZ-spot card)	Rat Panel (100ul centrifuged blood)
IDEXX Panel Name (samples needed)	U Mich Rat Surveillance Opti-XXpress (fecal sample, oral swab, body swab)	UMich VA Rat Assessment Serology Panel (200ul centrifuged blood or Opti-spot card)	
Used For	Quarantine	Surveillance: Q1, Q3	
Test Type	PCR	MFIA	ELISA
GDVII (TMEV, RTV)	X	X	X
H-1	X	X	X
KRV (RV)	X	X	X
LCMV	X	X	X
MAV	X	X	X
Mpui	X	X	X
NS-1		X	X
PVM	X	X	X
REO	X	X	X
RPV	X	X	X
RVM (RVM)	X	X	X
SDAV (RCV)	X	X	X
Sendai	X	X	X
Pinworms	X		
Fur mites	X		

Table 5: Guinea Pigs

CRL Panel Name (samples needed)	U Michigan Guinea Pig Custom PRIA (fecal sample)
IDEXX Panel Name (samples needed)	UMich Guinea Pig PCR Panel A (fecal sample)
Used For	Quarantine: all year Surveillance: Q1, Q3
Test Type	PCR
PVM	X
REO	X
LCMV	X
GAV	X
Sendai	X

Table 6: Rabbits

CRL Panel Name (samples needed)	FELASA BasicPRIA (fecal sample, body / perianal swab)		Rabbit Assessment Serology Profile (200-250ul Undiluted blood)	U Michigan Custom 3-Agent Rabbit PCR (fecal sample, oral swab, perianal swab)	Rabbit Surveillance Plus PRIA (fecal sample, fur swab, oral swab)
IDEXX Panel Name (samples needed)		Custom Rabbit Profile (350ul serum or 250ul undiluted, feces, nasal, oral swab, ear smear)			
Used For					Quarantine, Surveillance
Test Type	PCR	MFIA, IFA, ELISA, PCR			PCR
B. bronchiseptica	X	X		X	X
Cilia-Associated Respiratory Bacillus (CARB)			X		X
Clostridium perfringens		X			
Clostridium piliforme (CPIL)	X	X	X		X
Cryptosporidium spp.	X				X
Ear mange		X			
EDIM (Rotavirus)	X	X	X		X
Eimeria spp.		X			
E. cuniculi	X	X	X		X
Entamoeba					X
Enteric Protozoa	X				
Giardia spp.	X				X
Helicobacter					X
Hepatitis E virus (rabbit)					X
Lawsonia					X
LCMV			X		X
Mycoplasma spp.		X			
Myxomatosis		X			
P. multocida	X	X		X	X
Parainfluenzavirus-1 (PIV-1)			X		
Parainfluenzavirus-2 (PIV-2)			X		
Pasteurella pneumotropica (Heyl & Jawetz)					X
Pasteurellaceae					X
Picobirnavirus (rabbit)					X
Pinworms	X			X	X
Pseudomonas aeruginosa		X			X
REO			X		
RHDV		X	X		
Salmonella spp.		X			X

Table 6: Rabbits

Sendai		X			
Spironucleus muris					X
Staphylococcus aureus					X
Toxoplasma gondii		X	X		
Treponema cuniculi		X	X		

Table 7: Voles

CRL Panel Name (samples needed)	Rodent Assessment Profile	U Michigan Vole PRIA (fecal sample, Body / perianal swab)
IDEXX Panel Name (samples needed)		
Used For		Quarantine, Surveillance
Test Type	IFA	PCR
ECUN	X	
Hanta	X	X
LCMV	X	X
MHV	X	X
MPV		X
MVM	X	X
PHV	X	X
Hanta Viruses New World (PIV)	X	X
PVM	X	X
REO	X	X
Rota	X	X
Sendai	X	X
Pinworms		X
Fur mites		X

Table 8: Hamsters

CRL Panel Name (samples needed)	Hamster Assessment Panel (applicable for Golden Syrian Hamsters only) (100ul centrifuged blood or Opti-spot card)	Hamster FELASA Basic PRIA panel (fecal sample, body swab, oral swab)
IDEXX Panel Name (samples needed)		
Used For		Surveillance
Test Type	MFIA	PCR
CPIL	X	
Cryptosporidium		X
ECUN	X	
Demodex		X
Entamoeba		X
Fur Mites		X
Giardia		X
LCMV	X	X
Pinworms		X
PIV-5 (SV-5)	X	
PVM	X	
REO	X	
Rodentibacter heylii		X
Rodentibacter pneumotropicus		X
SEND	X	X
Spironucleus muris		X

Table 9: Zebrafish

CRL Panel Name (samples needed)	U Michigan Zebrafish Essential PCR Panel (frozen whole fish)	Zebrafish Mycobacterium PCR Panel (500mL detritus)	Fish Histopathology (whole fish in formalin)
IDEXX Panel Name (samples needed)	Zebrafish Essential PCR panel (frozen whole fish)	Mycobacterium PCR panel (1ml detritus/sediment/sludge/biofilm)	Zebrafish Pathology (fixed whole fish)
Used For	Surveillance: Q1, Q3	Surveillance: Q2, Q4	Surveillance: Q2, Q4
Test Type	PCR	PCR	Pathology
Edwardsiella ictaluri	X		
Mycobacterium abscessus	X	X	
Mycobacterium chelonae	X	X	
Mycobacterium fortuitum	X	X	
Mycobacterium gordonae	X	X	
Mycobacterium haemophilum	X	X	
Mycobacterium marinum	X	X	
Mycobacterium peregrinum	X	X	
Mycobacterium saopaulense	X	X	
Myxidium streisingeri	X		
Pseudocapillaria tomentosa	X		
Pseudoloma neurophilia	X		
Zebrafish picomavirus (ZfPV-1)	X		

Table 10: Frog

CRL Panel Name (samples needed)	U Michigan Xenopus PCR Panel	Aerobic Culture
IDEXX Panel Name (samples needed)	Essential Xenopus PCR panel (skin swab)	Xenopus Microbiology panel (skin swab using culture swab)
Used For	Surveillance: Q1, Q3	Surveillance: Q2
Test Type	PCR	Microbiology
Aeromonas dhakensis		X
Aeromonas hydrophila		X
Batrachochytrium dendrobatidis	X	
Elizabethkingia meningoseptica		X
Mycobacterium Chelonae	X	
Mycobacterium gordonae	X	
Mycobacterium marinum	X	
Pseudocapillarioides xenopi	X	
Pseudomonas aeruginosa		X
Ranavirus spp.	X	
Salmonella enterica		X
Saprolegnia spp.		X