

VIRUS TESTING

Serological evaluations are performed on immunocompetent animals (sentinels) or samples from immunocompetent animals from within a colony. For most mouse agents, the primary test is typically MFIA (Bead), supported by ELISA / IFA where a need exists for secondary testing.

Wherever possible, Inotiv promotes the appropriate use of modern NSP testing techniques. For virus testing, this typically includes serum and dried blood spot technology (DBS), but rtPCR can also be used when shipping faecal or environmental samples from IVC exhaust filters or surfaces.

Each test methodology offers additional customer benefits. Repeated use of serological testing, which uses specific antibodies to detect target agents, builds infectious trend information over time. Conversely, rtPCR testing provides and instantaneous viral picture of your colony.

POOLING

We do not recommend pooling DBS and serology samples due to the potential non-specific / idiopathic interactions between samples, causing false negative / positive reporting. Environmental samples, as well as faecal samples for rtPCR, can be tested up to a maximum of ten (10) into one, single sample.

A panel of available tests for viruses by species is listed below.

VIRUSES	TEST METHOD (RTPCR ONLY FOR MOUSE/RAT)	MOUSE	RAT	HAMSTER	GUINEA PIG	RABBIT	SAMPLE TYPE (CAN BE SPECIE SPECIFIC)
Ectromelia Virus ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Guinea Pig Adenovirus ⁽⁴⁾	ELISA / rtPCR				✓		LA / S / DBS / F / E / OS
Guinea Pig Cytomegalovirus ⁽⁴⁾	ELISA / rtPCR				✓		LA / S / DBS / F / E
Guinea Pig Parainfluenza Virus ⁽⁴⁾	ELISA				✓		LA / S / DBS
Hamster Polyoma Virus ⁽³⁾	ELISA			✓			LA / S / DBS
Hanta Virus ^(2,6)	MFIA / ELISA / rtPCR	✓	✓				LA / S / DBS / F / E
Kilham Rat Virus ⁽²⁾	ELISA / rtPCR		✓				LA / S / DBS / F / E
Lactate Dehydrogenase-Elevating Virus	ELISA / rtPCR	✓					LA / S / DBS / F / E
Lymphocytic Choriomeningitis Virus ^(1,3)	MFIA / ELISA / rtPCR	✓	✓	✓			LA / S / DBS / F / E
Minute Virus of Mice ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Adenovirus type 1 (FL) ^(1,2)	MFIA / ELISA / rtPCR	✓	✓				LA / S / DBS / F / E
Mouse Adenovirus type 2 (K87) ^(1,2)	MFIA / ELISA / rtPCR	✓	✓				LA / S / DBS / F / E
Mouse Cytomegalo Virus	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Hepatitis Virus ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Noro Virus ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse K-Virus	ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Kidney Parvovirus	ELISA / rtPCR	✓					F / E
Mouse Parvo Virus (MPV-NS1) ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Polyoma Virus	ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Rotavirus (EDIM) ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Mouse Thymic Virus	IFA / rtPCR	✓					LA / S / DBS / F / E
Pneumonia Virus of Mice ^(1,2)	MFIA / ELISA / rtPCR	✓	✓	✓			LA / S / DBS / F / E / OS
Rabbit Adeno Virus	ELISA / rtPCR					✓	LA / S / DBS / F / E
Rabbit Corona Virus	ELISA					✓	LA / S / DBS
Rabbit Haemorrhagic Disease Virus ⁽⁵⁾	ELISA / rtPCR					✓	LA / S / DBS / F / E
Rabbit Pox Virus (Myxomatosis)	ELISA / rtPCR					✓	LA / S / DBS / F / E
Rabbit Rotavirus ⁽⁵⁾	ELISA / rtPCR					✓	LA / S / DBS / F / E
Rabbit calicivirus	rtPCR					✓	F / E
Rat Minute Virus ⁽²⁾	ELISA / rtPCR		✓				LA / S / DBS / F / E
Rat Parvo Virus (type 1 and 2) ⁽²⁾	ELISA / rtPCR		✓				LA / S / DBS / F / E
Rat Polyomavirus ⁽²⁾	ELISA / rtPCR		✓				DBS / F / E / OS
Rat Theilo Virus ⁽²⁾	ELISA / rtPCR		✓				LA / S / DBS / F / E
Reovirus Type 3 ^(1,2)	MFIA / ELISA / rtPCR	✓	✓				LA / S / DBS / F / E
Sendai Virus ^(1,2,3,4)	MFIA / ELISA / rtPCR	✓	✓	✓	✓		LA / S / DBS / F / E
Sialodacryoadenitis / Rat Coronavirus ⁽²⁾	ELISA / rtPCR		✓				LA / S / DBS / F / E / OS
Simian Virus ⁽⁵⁾	rtPCR						F / E / OS
Theiler's Murine Encephalomyelitis Virus ⁽¹⁾	MFIA / ELISA / rtPCR	✓					LA / S / DBS / F / E
Toolan H1 ⁽²⁾	ELISA / rtPCR		✓				LA / S / DBS / F / E

- (1) Mouse agents recommended by FELASA 2014 (quarterly and/or annual)
- (2) Rat agents recommended by FELASA 2014 (quarterly and/or annual)
- (3) Hamster agents recommended by FELASA 2014 (quarterly and/or annual)
- (4) Guinea pig agents recommended by FELASA 2014 (quarterly and/or annual)
- (5) Rabbit agents recommended by FELASA 2014 (quarterly and/or annual)
- (6) Includes Hantaan, Seoul and Sin Nombre strains

Sample type:

DBS:	Dry Blood Spot	LA:	Live Animal
F:	Fecal	OS:	Oral Swab
FS:	Fur Swab	S:	Serum
E:	Environmental material (filter, swabs, other)		