



MicroBioS
microbiological services

Info Flyer

Direct Samples of the Mouse



General Information about Direct Samples of the Mouse

Direct samples are different samples taken from live animals. They are used - for example - for examination of mice in quarantine to control the health status of individual animals. Such samples can also be used within the general health monitoring program in an animal unit and can help to reduce the number of sentinel animals.

The samples are taken in the animal facility directly from the animals. Therefore, the collection of the samples is a critical point and has a direct impact on the quality of the results. The personnel should be trained in the respective methods for sample taking and the animals should be accustomed to the handling as well.

The direct samples generally include the following sample material:

Feces, fur swab («Sticky Swab»), pharynx swab (bacteriology swab or PCR swab), blood sample (Dry Blood Spot, DBS)

For your support we have prepared a short guide for the sample collection in the mouse. You will find this in the «MicroBioS Info Flyer: Collection of Direct Samples from the Mouse».

The MicroBioS – analytical programm for direct samples includes the following FELASA packages (based on FELASA recommendations 2014):

FELASA-Package		
FELASA 2014 Quarterly Bacteriology Profile	Includes: fur PCR - feces PCR (excl. Helicobacter) - pharynx bacteriology - blood serology	Optional: Feces Helicobacter PCR
FELASA 2014 Quarterly PCR Profile	Includes: fur PCR - feces PCR (excl. Helicobacter) - pharynx PCR - blood serology	
FELASA 2014 Yearly Bacteriology Profile	Includes: fur PCR - feces PCR (excl. Helicobacter) - pharynx bacteriology - blood serology	
FELASA 2014 Yearly PCR Profile	Includes: fur PCR - feces PCR (excl. Helicobacter) - pharynx PCR - blood serology	

Additional or single analyses are also possible:

Single analyses (examples)			
pharynx bacteriology	pharynx PCR (quarterly)	pharynx PCR (yearly)	fur PCR (ectoparasites)
feces PCR (protozoa)	feces PCR (spironucleus)	feces PCR (Helicob. with diff.)	feces PCR (Helicob., no diff.)
feces PCR (helminths)	feces bacteriology	blood serology (quarterly)	blood serology (yearly)

The PCR is an established, fast and reliable method for the detection of pathogenes. With PCR, defined parts of DNA or RNA are detected. Therefore, the existence of specific microorganisms can be confirmed or excluded. It also means that this technique can detect only what we are actively looking for. Compared to that, methods like classical bacteriology provide

the possibility to find and differentiate also further bacteria which grow on the plates. This may give a more comprehensive overview about the microbial status. Depending on the needs of our customers we are able to provide both methods for the analysis of pharynx swabs in the quarterly as well as yearly FELASA package.

The complete content of analyses in the FELASA packages is summarized in the following table (incl. Helicobacter):

FELASA 2014 Quarterly Bacteriology Profile		FELASA 2014 Quarterly PCR Profile		FELASA 2014 Yearly Bacteriology Profile		FELASA 2014 Yearly PCR Profile	
Fur PCR		Fur PCR		Fur PCR		Fur PCR	
Myocoptes musculus	PCR	Myocoptes musculus	PCR	Myocoptes musculus	PCR	Myocoptes musculus	PCR
Radfordia/Myobia	PCR	Radfordia/Myobia	PCR	Radfordia/Myobia	PCR	Radfordia/Myobia	PCR
Feces PCR		Feces PCR		Feces PCR		Feces PCR	
Helicobacter spp.	PCR	Helicobacter spp.	PCR	Helicobacter spp.	PCR	Helicobacter spp.	PCR
Entamoeba muris	PCR	Entamoeba muris	PCR	Entamoeba muris	PCR	Entamoeba muris	PCR
Chilomastix sp.	PCR	Chilomastix sp.	PCR	Chilomastix sp.	PCR	Chilomastix sp.	PCR
Spironucleus muris	PCR	Spironucleus muris	PCR	Spironucleus muris	PCR	Spironucleus muris	PCR
Trichomonas spp.	PCR	Trichomonas spp.	PCR	Trichomonas spp.	PCR	Trichomonas spp.	PCR
Giardia spp.	PCR	Giardia spp.	PCR	Giardia spp.	PCR	Giardia spp.	PCR
Syphacia spp.	PCR	Syphacia spp.	PCR	Syphacia spp.	PCR	Syphacia spp.	PCR
Aspicularis tetraptera	PCR	Aspicularis tetraptera	PCR	Aspicularis tetraptera	PCR	Aspicularis tetraptera	PCR
				Citrobacter rodentium	PCR	Citrobacter rodentium	PCR
				Salmonella sp.	PCR	Salmonella sp.	PCR
Pharynx Bact. Swab*		Pharynx PCR Swab		Pharynx Bact. Swab*		Pharynx PCR Swab	
Pasteurellaceae	Culture	Pasteurellaceae	PCR	Pasteurellaceae	Culture	Pasteurellaceae	PCR
Streptococcus pneumoniae	Culture	Streptococcus pneumoniae	PCR	Streptococcus pneumoniae	Culture	Streptococcus pneumoniae	PCR
β-haemolytic Streptococci (not group D)	Culture	Streptococcus pyogenes	PCR	β-haemolytic Streptococci (not group D)	Culture	Streptococcus pyogenes	PCR
		Streptococcus agalactiae	PCR	Corynebacterium kutscheri	Culture	Streptococcus agalactiae	PCR
		Streptococcus dysgalactiae ssp.	PCR			Streptococcus dysgalactiae ssp.	PCR
						Corynebacterium kutscheri	PCR
Blood DBS		Blood DBS		Blood DBS		Blood DBS	
Mouse rota virus	Sero	Mouse rota virus	Sero	Mouse rota virus	Sero	Mouse rota virus	Sero
Mouse hepatitis virus	Sero	Mouse hepatitis virus	Sero	Mouse hepatitis virus	Sero	Mouse hepatitis virus	Sero
Murine norovirus	Sero	Murine norovirus	Sero	Murine norovirus	Sero	Murine norovirus	Sero
Mouse parvo virus	Sero	Mouse parvo virus	Sero	Mouse parvo virus	Sero	Mouse parvo virus	Sero
Minute virus of mice	Sero	Minute virus of mice	Sero	Minute virus of mice	Sero	Minute virus of mice	Sero
Theiler's murine encephalomyelitis virus	Sero	Theiler's murine encephalomyelitis virus	Sero	Theiler's murine encephalomyelitis virus	Sero	Theiler's murine encephalomyelitis virus	Sero
				Ectromelia virus	Sero	Ectromelia virus	Sero
				Lymphocyt. choriomeningitis virus	Sero	Lymphocyt. choriomeningitis virus	Sero
				Mouse adenovirus, FL	Sero	Mouse adenovirus, FL	Sero
				Mouse adenovirus, K87	Sero	Mouse adenovirus, K87	Sero
				Pneumonia virus of mice	Sero	Pneumonia virus of mice	Sero
				Reovirus type 3	Sero	Reovirus type 3	Sero
				Sendai virus	Sero	Sendai virus	Sero
				Mycoplasma pulmonis	Sero	Mycoplasma pulmonis	Sero
				Clostridium piliforme	Sero	Clostridium piliforme	Sero
				Streptobacillus moniliformis	Sero	Streptobacillus moniliformis	Sero

Abbreviations

Bact. = bacteriology

DBS = dry blood spot

PCR = polymerase chain reaction

Sero = serology

*all grown microbes will be reported

In case of questions or for customized packages, please do not hesitate to contact us.



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