

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-17830-02-00 according to DIN EN ISO/IEC 17025:2005

Period of validity: 25.05.2018 to 24.05.2023

Date of issue: 19.07.2018

Holder of certificate:

Agrobiogen GmbH
Larezhäuser Straße 3, 86567 Hilgertshausen

Tests in the field:

Veterinary Medicine

Testing area:

Virology (Molecular Biology)

Genetics (Molecular Genetics, Parentage Report)

Abbreviations used: see last page

Within the given testing field marked with **), the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the modification, development and refinement of testing methods.

The listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

Testing field: Veterinary Medicine

Testing area: Virology (Molecular Biology)

Type of test: Amplification Procedures **

| Analyte (measurement parameter) | Test material (matrix) | Test technique |
|--|---|----------------|
| BVDV (bovine viral diarrhoea virus) | viral RNA from blood/serum or tissue (cattle) | real-time PCR |
| SBV (Schmallenberg virus) | viral RNA from blood/serum and semen or tissue (cattle) | real-time PCR |
| BTV (Bluetongue virus) | viral RNA from blood/serum and semen or tissue (cattle) | real-time PCR |

Testing area: Genetics (Molecular Genetics, Parentage Report)

Type of test: Amplification Procedures **

| Analyte (measurement parameter) | Test material (matrix) | Test technique |
|--|--|--|
| cattle genotype for parentage analysis and determination of identity | DNA from blood, tissue, semen, and hair roots as well as swabs from cattle | fragment length analysis STR analysis: PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| horse genotype for parentage analysis and determination of identity | DNA from blood, tissue, semen, and hair roots as well as swabs from horse | fragment length analysis STR analysis: PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| sheep genotype for parentage analysis and determination of identity | DNA from blood, tissue, semen, as well as swabs from sheep | fragment length analysis STR analysis: PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| goat genotype for parentage analysis and determination of identity | DNA from blood, tissue, semen, as well as swabs from goat | fragment length analysis STR analysis: PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |

| Analyte (measurement parameter) | Test material (matrix) | Test technique |
|--|---|--|
| pig genotype for parentage analysis and determination of identity | DNA from blood, tissue, semen, and hair roots as well as swabs from pig | fragment length analysis STR analysis: PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| alpaca genotype for parentage analysis and determination of identity | DNA from blood, tissue, semen, as well as swabs from alpaca | fragment length analysis STR analysis: PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| determination of the Y chromosome for diagnosis of freemartinism in cattle | DNA from blood of female calves born together with males in multiple births | fragment length analysis PCR followed by capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| gene variants at the prion protein gene locus of sheep and goats | DNA from blood, tissue, semen or swabs from sheep and goats | PCR followed by pyrosequencing |
| genotyping of spider lamb syndrome | DNA from blood, tissue, semen or swabs from sheep | PCR followed by pyrosequencing |
| genotyping of microphthalmia | DNA from blood, tissue, semen or swabs from sheep | PCR followed by pyrosequencing |
| diagnostic of genetic defects in Wagyu cattle | DNA from blood, tissue, semen, hair roots or swabs from cattle | PCR followed by pyrosequencing or capillary electrophoresis and assignment of alleles to corresponding PCR fragments |
| analysis of genetic beef quality markers in Wagyu cattle | DNA from blood, tissue, semen, hair roots or swabs from cattle | PCR followed by pyrosequencing |

Abbreviations used:

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|-----|--|
| DIN | Deutsches Institut für Normung e.V. (German Institute for Standardization, registered Society) |
| EN | Europäische Norm (european standard) |
| ISO | International Organization for Standardization |
| STR | Short Tandem Repeats |