



dr. van haeringen laboratorium b.v.

a VHLGenetics company

Stuurman-Jansen  
Stationsweg 88  
6075CD Herkenbosch  
Customer number 103388

## Analysis Certificate

### Animal data

Name: SUNRISE SCARLET FIRE V. MEINWEG  
Date of birth: . .  
Sexe: Female  
Chip number: 528140000707336  
Reg. nr.: 3116666

### Sample data

VHL\_ID: H255183  
Test ID-nr: 269346 2  
Material: Unknown

Dam: 528140000494383 / VHL\_ID: H777966 / BRANWEN'S KIWI SUNRISE V. MEINWEG  
Sire: 981100002844515 / VHL\_ID: H788773 / BLACKSUGAR LUIS

### H421 - Hiplaxity 2 - Date of test: 19.08.2019

Testresult: HL/HL

### H427 - Myotubular myopathy 1 - Date of test: 19.08.2019

Testresult: NORMAL

### H510 - Skeletal Dysplasia 2 (SD2) - Date of test: 19.08.2019

Testresult: NORMAL

### H698 - Narcolepsy Labrador Retriever - Date of test: 19.08.2019

Testresult: NORMAL

### H741 - Piruvatekinase Def. - Date of test: 19.08.2019

Testresult: NORMAL

### H811 - Hyperuricemia (HUU) - Date of test: 19.08.2019

Testresult: NORMAL

### H919 - Hiplaxity 1 - Date of test: 19.08.2019

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Testresult: HL/HL

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**H441 - Thrombocytopaenia - Date of test: 19.08.2019**

Testresult: NORMAL

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**H672 - EIC (partner lab) - Date of test: 13.09.2019**

Testresult: CARRIER

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**H673 - DM (partner lab) - Date of test: 13.09.2019**

Testresult: NORMAL

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**H675 - HNPCK (partner lab) - Date of test: 13.09.2019**

Testresult: NORMAL

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**H704 - prcd PRA (partnerlab) - Date of test: 13.09.2019**

Testresult: NORMAL

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**H317 - Macular Corneal Dystrophy - Date of test: 19.08.2019**

Testresult: NORMAL

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**H643 - Cystinuria, type II - A - 1 - Date of test: 19.08.2019**

Testresult: NORMAL

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**H746 - Canine Malignant Hypertherm - Date of test: 19.08.2019**

Testresult: NORMAL

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**H794 - RD/OSD - Date of test: 19.08.2019**

Testresult: NORMAL

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**H749 - Centronucleaire Myopathie (CNM) - Date of test: 19.08.2019**

Testresult: NORMAL

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D. Mioch, MSc Veterinary Medicine  
CEO

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#### H421 - Hiplaxity 2

The disease is of multifactorial origin, which means that the symptoms are a combination of genetic factors as well as the environment.

This marker is part of a panel of genetic factors influencing hip laxity. For each genetic factor of a multifactorial disease, the desirable genetic variant is indicated as 'N/N'. Animals carrying one copy of the undesirable genetic variant are indicated as 'N/HL', whereas animals carrying two copies of the undesirable genetic variant are indicated as 'HL/HL'.

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#### H427 - Myotubular myopathy 1

Explanation about the result for females:

**NORMAL:** The animal is free and has two healthy alleles. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

Explanation about the result for males:

**NORMAL:** The animal is free and has one healthy allele and the sex chromosome Y. It cannot spread the disease in the population.

**AFFECTED:** The animal is affected and has one mutant (disease) allele and the sex chromosome Y. When used in breeding, all male offspring will receive the sex chromosome Y. All female offspring will receive the mutant (disease) allele.

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#### H510 - Skeletal Dysplasia 2 (SD2)

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H698 - Narcolepsy Labrador Retriever

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H741 - Piruvatekinase Def.

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

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**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H811 - Hyperuricemia (HUU)

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H919 - Hiplaxity 1

The disease is of multifactorial origin, which means that the symptoms are a combination of genetic factors as well as the environment.

This marker is part of a panel of genetic factors influencing hip laxity. For each genetic factor of a multifactorial disease, the desirable genetic variant is indicated as 'N/N'. Animals carrying one copy of the undesirable genetic variant are indicated as 'N/HL', whereas animals carrying two copies of the undesirable genetic variant are indicated as 'HL/HL'.

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#### H441 - Thrombocytopaenia

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H672 - EIC (partner lab)

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H673 - DM (partner lab)

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H675 - HNPk (partner lab)

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H704 - prcd PRA (partnerlab)

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H317 - Macular Corneal Dystrophy

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H643 - Cystinuria, type II - A - 1

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H746 - Canine Malignant Hypertherm

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will also become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### H794 - RD/OSD

Explanation about the result:

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**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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#### **H749 - Centronucleaire Myopatie (CNM)**

Explanation about the result:

**NORMAL:** The animal is free and has two healthy alleles. When used in breeding, this animal will not become ill due to the disease. It cannot spread the disease in the population.

**CARRIER:** The animal is carrier and has one healthy and one mutant (disease) allele. When used in breeding, 50 percent of the offspring will receive the disease allele. Carriers will not become ill.

**AFFECTED:** The animal is affected and has two mutant (disease) alleles. When used in breeding, all offspring will receive the mutant allele from this animal. Affected animals will become ill.

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