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LABOR FÜR KLINISCHE DIAGNOSTIK GMBH & CO. KG

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Ms.
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Report No.:	**2509-W-765701**
Date of arrival:	30.09.2025
Date of report:	10.10.2025
Testing started:	30.09.2025
Testing completed:	10.10.2025
Status of the report:	Final report

Species:	Cat
Breed:	Ragdoll
Gender:	Male
Name:	SE*Ocmamis Sylvester ''Syl'' Stallone
Stud book No.:	LO 442931
Chip No.:	752094100400802
Date of birth / Age:	08.05.2025
Type of sample:	EDTA-Blood
Date sample was taken:	26.09.2025
Sampler:	Vet, Dr. Synne Gabrielsen
Owner / Animal-ID:	Hagavei, Hilde Viktoria
IT No. / Report-ID:	---

Breeding club discounts were granted for discountable services!

LABO XXL Genetics

Genetic determination of bloodgroup - PCR

Result: Genotype N/N

Interpretation: The examined animal is homozygous for the N allele. It does not carry the causative genetic variant found in correlation with the serologic blood group B and AB (C) so far.

The test detects three genetic variants (268T>A, 179G>T, 1322delT) for the alleles b and one variant for c (364C>T).

Allelic series: N>c>b

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In genetic testing, we analyse the genetic variants associated with hereditary diseases or genetic traits. The results of these genetic tests always show both alleles of the animal for the variant that has been tested. The symbol "N" indicates the presence of the wild-type allele, while the variant alleles are designated according to the associated diseases (in the example referred to as 'mut').

Possible results:

- N/N: The genetic variant associated with the disease is absent.

- N/mut: The tested animal carries one copy of the analysed variant.

- mut/mut: The tested animal carries two copies of the analysed variant.

It is important to note that solely relying on this genetic information cannot provide definitive insight into whether, when, or to what extent a disease may manifest. For certain diseases, the severity of the condition is influenced by additional factors, some of which are not detectable through genetic testing. Variable penetrance, which involves varying degrees of severity, also frequently plays a role. In cases of recessive hereditary diseases, the disease usually only manifests when an individual possesses two copies of the investigated variant. In contrast, for dominant hereditary diseases, the presence of a single copy of the variant already influences the likelihood of disease occurrence. The annotation numbers **r** (autosomal recessive), **d** (autosomal dominant), and **Xr** (X chromosomal recessive) indicate the respective mode of inheritance.

Not every noticeable result necessarily has health consequences for the animal or its offspring. In cases where the animal is heterozygous (a carrier) for a monogenic autosomal recessive disease, the detected findings have no impact on the animal's health and, when bred with a clear partner, pose no risk to the offspring.

The following applies to non-breed-specific results:
So far, no correlation between the tested variant and the associated clinical symptoms has been scientifically proven in the breed of this animal.

For more comprehensive information regarding specific hereditary diseases, please refer to our website.

BREED SPECIFIC VARIANTS

Unremarkable results	Genotype	Gene	Variant
Congenital hypothyroidism (CH) [r]	N/N	TPO	C-T
Cystinuria [r]	N/N	SLC7A9	T-A
FXII deficiency (1321delC) [r,5]	N/N	F12	DEL
FXII deficiency (1631G>C) [r,5]	N/N	F12	DEL
Hypertrophic Cardiomyopathy (HCM3) Ragdoll [d]	N/N	MYBPC3	G-A
MDR1 gene variant (MDR) [r]	N/N	ABCB1	DEL
Mucopolysaccharidosis type VI (MPS VI) [r]	N/N	ARSB	A-G, C-T
Mucopolysaccharidosis type VII (MPS VII) [r]	N/N	GUSB	G-A
Myotonia congenita [r]	N/N	CLCN1	G-T
Polycystic kidney disease (PKD) [d]	N/N	PKD1	C-A
Polydactyly - Hw variant [d]	N/N	LMBR1	T-C
Polydactyly - UK1 variant [d]	N/N	LMBR1	C-G
Polydactyly - UK2 variant [d]	N/N	LMBR1	T-A
Progressive Retinal Atrophy (pd-PRA) [r]	N/N	AIPL1	C-T

BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)

Unremarkable results	Genotype	Gene	Variant
Acrodermatitis enteropathica (AE) [r]	N/N	SLC39A4	C-G
Alpha-Mannosidosis (AMD) [r]	N/N	MAN2B1	DEL
Autoimmune lymphoproliferative Syndrome (ALPS) [r]	N/N	FASLG	INS
Congenital myasthenic syndrom (CMS) [r]	N/N	COLQ	C-T
Factor XI Deficiency [r,5]	N/N	F11	G-A
Feline Spinal Muscular Atrophy (SMA) [r]	N/N	LIX1	COMPLEX

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BREED NON-SPECIFIC VARIANTS (NO CORRELATION DETECTED IN YOUR BREED)

Unremarkable results	Genotype	Gene	Variant
Gangliosidosis (GM1) [r]	N/N	GLB1	C-G
Gangliosidosis (GM2) [r]	N/N	HEXB	DEL
Glycogen storage disease (GSDIV) [r]	N/N	GBE1	COMPLEX
GM2-Gangliosidosis [r]	N/N	HEXB	DEL
Head Defect	N/N	ALX1	DEL
Hypertrophic cardiomyopathy (HCM1) Maine Coon [d]	N/N	MYBPC3	C-G
Hypertrophic cardiomyopathy (HCM4) Sphynx [d]	N/N	ALMS1	G-C
Hypokalemia [r]	N/N	WNK4	C-T
Hypotrichosis/Short Life Expectancy [r]	N/N	FOXN1	DEL
Osteochondrodysplasie [d]	N/N	TRPV4	C-A
Primary congenital glaucoma [r]	N/N	LTBP2	INS
Progressive Retinal Atrophy (PRA-b) [r]	N/N	KIF3B	C-T
Progressive Retinal Atrophy (rdAc-PRA) [r]	N/N	CEP290	A-C
Pyruvatkinase Deficiency: [r]	N/N	PKLR	G-A

COAT COLORS & COAT CHARACTERISTICS

Genetic test	Genotype	Allelic series
Coat colour Amber [r]	E/E	E>e
Coat colour brown [r]	B/B	B>b>bl
Coat colour Charcoal [r]	a/a	A>a
Coat colour Copal [r]	E/E	E>ec
Coat colour Russet [r]	E/E	E>er
Coat colour variant "Snow" (Bengal) [r]	cs/cs	C>cb>cs
Coat colour Variant Agouti [r]	a/a	A>a
Coat colour variant Colourpoint [r]	cs/cs	C>cb>cs
Coat colour Variant Dilution [r]	d/d	D>d
Coat colour Variant Gold (Copper) [r]	N/N	N>wbBSH
Coat colour Variant Gold (extreme sunshine) [r]	N/N	N>wbeSIB>wbSib
Coat Colour Variant Gold (Sunshine) [r]	N/N	N>wbSib
Coat Length [r]	M3/M4	
Coat variant Curly [d]	N/N	Cu>N
Hairless/Curly Coat (SPH/DRX) [r]	N/N	N>hr>re
Tabby (S59X)	TaM/TaM	TaM>Tab
Tabby (W841X)	TaM/Tab	TaM>Tab
TiA (C63Y) [d]	N/N	TiA = TiCK > N
TiCK (A18V) [d]	N/N	TiA = TiCK > N

The current results are only valid for the sample submitted to our laboratory. The sender is responsible for the correct information regarding the sample material.The laboratory can not be made liable. Furthermore, any obligation for compensation is limited to the value of the tests performed.

There is a possibility that other mutations may have caused the disease/phenotype. The analysis was performed according to the latest knowledge and technology.

The laboratory is accredited for the performed tests according to DIN EN ISO/IEC 17025:2018. (except partner lab tests).
ngs

In rare cases, not all test results can be obtained, usually due to insufficient DNA quality or quantity. We guarantee results for at least 95% of all tests.
ngs

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Explanations on coat colour genetics

Help for interpreting the genetic variants can be found here:
https://shop.labogen.com/coat_colour_genetics_cat

Annotation numbers

Detailed information on the annotation numbers can be found here:
https://shop.labogen.com/annotations-info

These results are based on the sample material submitted to our laboratory.

This was suitable if not stated otherwise. The submitter is responsible for the accuracy of the information regarding the sample. This report can only be transmitted in toto and unchanged. Doing otherwise requires written permission from Laboklin GmbH & Co. KG.

LABOKLIN is an officially accredited laboratory according to DIN EN ISO/IEC 17025:2018, DAkkS No. D-PL-13186-01-01 D-PL-13186-1-02 and D-PL-13186-01-03. The accreditation applies to all test procedures listed in the accreditation certificate.

Fr.Dr. Weimann
Dipl.-Ing. Molekularbiologie

***** END of report *****

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