# embark

# DNA Test Report

## Dog Information

**T'Sexy de Sol Casa (Sexy)**
NAME

**Female**
SEX

**Belgian Shepherd
Breed with variety:
100% Belgian Malinois**
BREED ANCESTRY

**October 1st, 2020**
DATE OF BIRTH

**n/a**
MICROCHIP

**Fédération Cynologique Internationale
(FCI) LOSH-01320764**
REGISTRATION

**Pascalle Ruperti**
OWNER NAME

**Canine Genetic Health Screen**
TEST

**October 8th, 2024**
TEST DATE

## BREED HEALTH TESTS

To ensure completeness, this report includes all carrier and at risk results for this dog.

| DISEASE | GENE | GENOTYPE | RESULT | TESTING RECOMMENDED BY |
|---|---|---|---|---|
| Degenerative Myelopathy, DM | SOD1A | GG | Clear | 🛡 |
| Spongy Degeneration with Cerebellar Ataxia 1, SDCA1, SeSAME/EAST Syndrome | KCNJ10 | AA | Clear | 🛡 |
| Spongy Degeneration with Cerebellar Ataxia 2, SDCA2 | ATP1B2 | AA | Clear | 🛡 |
| Cardiomyopathy and Juvenile Mortality | YARS2 | GG | Clear | 🐕 |
| Hereditary Cerebellar Ataxia | SELENOP | NN | Clear | 🐕 |
| Mucopolysaccharidosis Type VII, Sly Syndrome, MPS VII | GUSB | GG | Clear | 🐕 |
| Copper Toxicosis (Accumulating) | ATP7B | GA | 1 Variant | |

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# INBREEDING AND DIVERSITY

| Genetic Diversity | RESULT | GENETIC RESULT |
|---|---|---|
| **Coefficient Of Inbreeding** | | **11%** |
| **MHC Class II - DLA DRB1** | | **High Diversity** |
| **MHC Class II - DLA DQA1 and DQB1** | | **High Diversity** |

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# TRAIT TESTS (1/3)

| Coat Color | RESULT | GENETIC RESULT |
|---|---:|---|
| E Locus (MC1R) | Can have a melanistic mask | $E^m E^m$ |
| K Locus (CBD103) | More likely to have a patterned haircoat | $k^y k^y$ |
| Intensity Loci | Any light hair likely yellow or tan | Intermediate Red Pigmentation |
| A Locus (ASIP) | Fawn Sable coat color pattern | $a^y a^w$ |
| D Locus (MLPH) | Dark areas of hair and skin are not lightened | DD |
| Cocoa (HPS3) | No co alleles, not expressed | NN |
| B Locus (TYRP1) | Black or gray hair and skin | BB |
| Saddle Tan (RALY) | Not expressed | NI |
| S Locus (MITF) | Likely to have little to no white in coat | SS |
| M Locus (PMEL) | No merle alleles | mm |
| R Locus (USH2A) | Likely no impact on coat pattern | Rr |

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# TRAIT TESTS (2/3)

| Coat Color | RESULT | GENETIC RESULT |
|---|---|---|
| **H Locus (Harlequin)** | No harlequin alleles | hh |
| **Panda White Spotting** | Not expected to display Panda pattern | NN |

| Other Coat Traits | RESULT | GENETIC RESULT |
|---|---|---|
| **Furnishings (RSPO2)** | Likely unfurnished (no mustache, beard, and/or eyebrows) | II |
| **Coat Length (FGF5)** | Likely short or mid-length coat | ShSh |
| **Shedding (MC5R)** | Likely heavy/seasonal shedding | CC |
| **Coat Texture (KRT71)** | Likely straight coat | CC |
| **Hairlessness (FOXI3)** | Very unlikely to be hairless | NN |
| **Hairlessness (SGK3)** | Very unlikely to be hairless | NN |
| **Oculocutaneous Albinism Type 2 (SLC45A2)** | Likely not albino | NN |

| Other Body Features | RESULT | GENETIC RESULT |
|---|---|---|
| **Muzzle Length (BMP3)** | Likely medium or long muzzle | CC |
| **Tail Length (T)** | Likely normal-length tail | CC |

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# TRAIT TESTS (3/3)

| Other Body Features | RESULT | GENETIC RESULT |
| --- | --- | --- |
| **Hind Dewclaws (LMBR1)** | Unlikely to have hind dew claws | CC |
| **Chondrodysplasia (Chr. 18 FGF4 Retrogene)** | Not indicative of chondrodysplasia (normal leg length) | NN |
| **Blue Eye Color (ALX4)** | Less likely to have blue eyes | NN |
| **Back Muscling & Bulk, Large Breed (ACSL4)** | Likely normal muscling | CC |

| Body Size | RESULT | GENETIC RESULT |
| --- | --- | --- |
| **Body Size (IGF1)** | Larger | NN |
| **Body Size (IGFR1)** | Larger | GG |
| **Body Size (STC2)** | Larger | TT |
| **Body Size (GHR - E191K)** | Intermediate | GA |
| **Body Size (GHR - P177L)** | Larger | CC |

| Performance | RESULT | GENETIC RESULT |
| --- | --- | --- |
| **Altitude Adaptation (EPAS1)** | Normal altitude tolerance | GG |
| **Appetite (POMC)** | Normal food motivation | NN |