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SANTA BARBARA • SANTA CRUZ

VETERINARY GENETICS LABORATORY
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AQHA GENETIC DISEASE PANEL TEST RESULTS

AMERICAN QUARTER HORSE ASSOCIATION
P.O. BOX 200
AMARILLO, TX 79168-0001

Case: QHA267387

Date Received: 04-Oct-2016

Print Date: 12-Oct-2016

Report ID: 8817-4723-5535-2128

Verify report at www.vgl.ucdavis.edu/myvgli/verify.html

Horse: 00022976903

Reg:

YOB: 2016 **Sex:** Stallion **Breed:** Quarter Horse **Alt. ID:** 6779915

Sire: SMART CHIC OLENA

Reg: 2283074

Dam: PROVE I DUNIT

Reg: 4532275

| | |
|--------------|------------|
| GBED | N/N |
| HERDA | N/N |
| HYPP | N/N |
| MH | N/N |
| PSSM1 | N/N |

N/N - Normal - Does not possess the disease-causing GBED gene

N/N - Normal - horse does not have the HERDA gene

N/N - Normal - Does not possess the disease-causing HYPP gene

N/N - Normal - horse does not have the MH gene

N/N - Normal - horse does not have the PSSM1 gene

GBED - Glycogen Branching Enzyme Deficiency. Fatal disease of newborn foals caused by defect in glycogen storage. Affects heart and skeletal muscles and brain. Inherited as recessive disease.

HERDA - Hereditary Equine Regional Dermal Asthenia. Skin disease characterized by hyperextensible skin, scarring, and severe lesions along the back of affected horses. Typical onset is around 2 years of age. Inherited as a recessive disease.

HYPP - Hyperkalemic Periodic Paralysis. Muscle disease caused by defect in sodium channel gene that causes involuntary muscle contraction and increased level of potassium in blood. Inherited as dominant disease. Two copies of defective gene produce more severe signs than one copy.

MH - Malignant Hyperthermia. Rare but life-threatening skeletal muscle disease triggered by exposure to volatile anesthetics (halothane), depolarizing muscle relaxants (succinylcholine), and stress. Presumed inheritance as dominant disease.

PSSM1 - Polysaccharide Storage Myopathy Type 1. Muscle disease characterized by accumulation of abnormal complex sugars in skeletal muscles. Signs include muscle pain, stiffness, sweating, twitching, weakness and reluctance to move. Inherited as a dominant disease.

GBED testing performed under a license agreement with the University of Minnesota.

HERDA testing performed under a license agreement with the University of California, Davis.

PSSM1 testing performed under a license agreement with the American Quarter Horse Association.



HORSE COAT COLOR / PATTERN TEST REPORT

Provided Information:

Name: **SMART N CHIC DUN IT**

Registration: **5784150**

Case: **NQ94708**

Date Received: **28-Apr-2023**

Report Issue Date: **06-May-2023**

Report ID: **9075-8853-3235-6155**

Verify report at www.vgl.ucdavis.edu/verify

DOB: **05/11/2016** Sex: **Stallion** Breed: **Quarter Horse**

| RESULT | | INTERPRETATION | RESULT | | INTERPRETATION |
|---|---------|--|--------------------------|--------|--|
| RED FACTOR | E/e | Both black and red factors detected. | SPLASHED WHITE | | Not requested. |
| AGOUTI | A/A | 2 copies of agouti present. If present, black pigment is restricted to the points. | TOBIANO | | Not requested. |
| CREAM | N/Cr | 1 copy of Cream dilution detected. | LEOPARD | | Not requested. |
| PEARL | N/N | No copies of Pearl dilution detected. | PATTERN-1 | | Not requested. |
| SILVER | N/N | No copies of Silver dilution detected. | BRINDLE 1 | | Not requested. |
| DUN | nd2/nd2 | Horse is not Dun dilute. Primitive markings are absent. | TIGER EYE | | Not requested. |
| CHAMPAGNE | N/N | No copies of Champagne dilution detected. | MUSHROOM (SHETLAND PONY) | | Not requested. |
| LETHAL WHITE OVERO | | Not requested. | GRAY | Absent | Gray gene is absent. Horse will not turn gray. |
| SABINO 1 | | Not requested. | ROAN | | Not requested. |
| DOMINANT WHITE (W5, W10, W13, W20, W22) | | Not requested. | | | |

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UC DAVIS
VETERINARY MEDICINE
Veterinary Genetics Laboratory

MYOSIN-HEAVY CHAIN MYOPATHY (MYHM) TEST REPORT

| | |
|---|--|
| Provided Information: Name: SMART N CHIC DUN IT Registration: 5784150 DOB: 05/11/2016 Sex: Stallion Breed: Quarter Horse | Case: NQ94708 Date Received: 26-Apr-2023 Report Issue Date: 03-May-2023 Report ID: 4295-3695-1412-5124 Verify report at www.vgl.ucdavis.edu/verify |
|---|--|

RESULT

| | |
|---------------------------------------|-----|
| Myosin-Heavy Chain Myopathy (MYHM) | N/N |
|---------------------------------------|-----|

INTERPRETATION

Normal. No copies of the MYHM allele detected. Horse does not have increased susceptibility for immune mediated myositis or nonexertional rhabdomyolysis caused by the MYHM allele.