Optimal Selection
FEELINGS OF LIFE

KTBF-9GE9 3
NORWAY'S GIDGET THE ENGLISH BUFFALO, Wood Brand

Registered: NORWAY'S GIDGET THE ENGLISH BUFFALO
Name: GIDGET
Call Name: GIDGET
Registration: FS 79/85-104/83 GI BHGF
Breed: Wood Brand
Gender: Female
Owner: Lacey Thompson
Country: United States
Testing date: 2020/8/6

Test results - Known disorders in the breed - page 1

Disorder	Type	Mode of inheritance	Result
Acute Intermittent Porphyria: HMBS mutation: c.669delC	Metabolic Disorders	Autosomal Dominant	Clear
Acute Intermittent Porphyria: HMBS mutation: c.826-1G>A	Metabolic Disorders	Autosomal Dominant	Clear
Chondrodystrophy: Leptomeningeal Cyst Disorder	Neurological Disorders	Autosomal Recessive	Clear
Congenital Adrenal Hypoplasia	Endocrine Disorders	Autosomal Recessive	Clear
Cystinuria: SLC3A1 mutation	Metabolic Disorders	Autosomal Recessive	Clear
Cystinuria: SLC7A9 mutation: c.1129delT	Metabolic Disorders	Autosomal Recessive	Clear
Cystinuria: SLC7A9 mutation: c.1360>A	Metabolic Disorders	Autosomal Recessive	Clear
Cystinuria: SLC7A9 mutation: c.361A>T	Metabolic Disorders	Autosomal Recessive	Clear
Dihydropyrimidinuria	Metabolic Disorders	Autosomal Recessive	Clear

On behalf of Genoscopen Laboratories

Jonas Donner, PhD, Head of Research and Development at Genoscopen Laboratories

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Test results - Known disorders in the breed - page 2

Disorder	Type	Mode of inheritance	Result
Factor XII Deficiency	Hematological Disorders	Autosomal Recessive	Clear
Canine GM1 Gangliosidosis	Neurological Disorders	Autosomal Recessive	Clear
GM2 Gangliosidosis, Domestic Shorthair mutation: HEXA mutation: c.805G>A	Neurological Disorders	Autosomal Recessive	Clear
GM2 Gangliosidosis, Domestic Shorthair (GM2A Mutation): GM2A mutation: c.15delG	Neurological Disorders	Autosomal Recessive	Clear
Hemophilia B, mutation F9: c.1214A>T	Blood Disorders	X-linked Recessive	Clear
Hemophilia B, mutation F9: c.2470-1A	Blood Disorders	X-linked Recessive	Clear
Hyperoxaluria	Renal Disorders	Autosomal Recessive	Clear
Mucopolysaccharidosis Type I	Metabolic Disorders	Autosomal Recessive	Clear
Mucopolysaccharidosis Type VI (MPS VI), Typical Form	Metabolic Disorders	Autosomal Recessive	Clear

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Test results - Known disorders in the breed - page 3

Disorder	Type	Mode of inheritance	Result
Mucopolysaccharidosis Type VII (Hurler/Scheie): GUSB c.1319G>A	Metabolic Disorders	Autosomal Recessive	Clear
Mucopolysaccharidosis VII: GUSB Incident C.1342G>T	Metabolic Disorders	Autosomal Recessive	Clear
Myotonia Congenita	Muscular Disorders	Autosomal Recessive	Clear
Niemann-Pick C2, NPC Disease, Sphingomyelinosis: NPC2 Mutation	Metabolic Disorders	Autosomal Recessive	Clear
Niemann-Pick C1, NPC Disease, Sphingomyelinosis: NPC1 Mutation	Metabolic Disorders	Autosomal Recessive	Clear
Polycystic Kidney Disease	Renal Disorders	Autosomal Dominant	Clear
Progressive Retinal Atrophy PRA (XPDR-1A), CYP2F4 mutation: c.1280dT	Ocular Disorders	Autosomal Recessive	Clear

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Test results - Traits - page 1

Blood Type

Trait	Genotype	Description
Blood Type (2 variants)	N/A	Cat carries A allele. Blood type is A.

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Test results - Traits - page 2

Coat Color

Trait	Genotype	Description
Color Locus B (Tabby/Black and Cinnamon/Red)	B/B	The cat possesses black pigment.
Color Locus C (Tabby/Colorpoint and Cinnamon/Red Variants)	C/C	The cat has full color with no color restrictions.
Color Locus A: Agouti and Non-Agouti Variants	a/a	The cat is likely to have non-agouti (solid) coat color.
Wide Band Inhibitor (Wb)	N/N	The cat has no copy of the Wide Band inhibitor in the WT gene. The cat's coat color is not affected by White spotting or Dominant White mutations.
Dilution Locus D (Blue)	D/D	The cat does not have a dilution gene.
MC1R (Extension) (Red)	E/E	The cat does not have a dilute for Black color found in Norwegian Cat.
MC1R (P 4R/4S)	E/E	The cat does not have an allele for Russet color found in Burmese.

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Test results - Traits - page 3

Coat Type

Trait	Genotype	Description
Long Hair (2 variants)	N/N/N	The cat carries one copy of the long hair mutations and is likely to have short coat.
LH2B (Rex) (2 variants)	N/N	The cat does not have Cornish Rex curly coat.
LHR7/13 (Ural) 1C	N/N	The cat does not have Selkirk Rex curly coat.

Morphology

Trait	Genotype	Description
Polydactyly (Extra toe(s)/digits) (2 variants)	N/N	The cat does not have any of the selected breed mutations originally found in Maine.
Polydactyly (2 variants)	N/N	The cat does not have any of the selected mutations causing extra digits.
HR2F (+TS)	T/T	The cat has no kinked mutation originally found in Japanese Bobtail.

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Test results - Additional disorders found in other breeds - page 1

Blood Disorders

Disorder	Mode of inheritance	Result
Erythrocyte Pyruvate Kinase (PK) Deficiency	Autosomal Recessive	Clear

Cardiac Disorders

Disorder	Mode of inheritance	Result
Hypertrophic Cardiomyopathy (HFM*D1) mutation: A31P found in Maine Coon	Autosomal Dominant (Incomplete Penetrance)	Clear
Hypertrophic Cardiomyopathy (HFM*D2) mutation: c.2460C>T found in Ragdoll	Autosomal Dominant (Incomplete Penetrance)	Clear

Immunologic Disorders

Disorder	Mode of inheritance	Result
Autoimmune Lymphoproliferative Syndrome	Autosomal Recessive	Clear
Congenital Hypothrombin with Short Life Expectancy	Autosomal Recessive	Clear

Metabolic Disorders

Disorder	Mode of inheritance	Result
Acute Intermittent Porphyria	Autosomal Dominant	Clear
Acute Intermittent Porphyria, HMBS mutation: c.669delC(HG3)	Autosomal Dominant	Clear
Congenital Erythropoietic Porphyria, mutation UROS: c.301G>A	Autosomal Recessive	Clear

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Test results - Additional disorders found in other breeds - page 2

Muscular Disorders

Disorder	Mode of inheritance	Result
Congenital Myasthenic Syndrome (CMS)	Autosomal Recessive	Clear
Periodic hypokalaemia, Episodically Burmese Hypokalaemia, or Familial Episodic Weakness (Burmese Type)	Autosomal Recessive	Clear
Spinal Muscular Atrophy (SMA)/Spinal Muscular Dystrophy	Autosomal Recessive	Clear

Neurologic Disorders

Disorder	Mode of inheritance	Result
GM2 Gangliosidosis, Japanese Domestic mutation HEXB: c.987C>T	Autosomal Recessive	Clear

Neuromuscular Disorders

Disorder	Mode of inheritance	Result
Hereditary Myopathy	Autosomal Recessive	Clear
Glycogen Storage Disease Type II	Autosomal Recessive	Clear

Ocular Disorders

Disorder	Mode of inheritance	Result
Glaucoma Susceptibility Allele	Autosomal Recessive	Clear
Retinal Dysplasia (rdy)	Autosomal Recessive	Clear

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APPENDIX
Explanation of the results of the tested disorders

Acute Intermittent Porphyria (AIP)

Clear - It can process no copies of the tested mutation and has no or reduced likelihood of developing and passing on the disease-condition.

Carrier - It can process one copy of the tested mutation. Carriers typically have a normal, healthy appearance but pass on the mutation on approximately 50% of their offspring.

Affected - It can process two copies of the tested mutation and is at high or increased risk of developing the disease-condition.

Autosomal dominant inheritance (AD)

Clear - It can process no copies of the tested mutation and has no or reduced likelihood of developing and passing on the disease-condition.

Carrier - It can process one or two copies of the tested mutation and is at high or increased risk of developing the disease-condition.

Affected - It can process two copies of the tested mutation and has no or reduced likelihood of developing and passing on the disease-condition.

Carrier status for recessive disorders are provided upon request for breeding purposes. Carriers are healthy and have a normal life expectancy. They can safely live with other carriers and non-carriers of the tested mutation. Breeding two cats of the same breed where both parents are carriers of the tested mutation, there is a 25% chance that a litter will have one copy of the tested mutation and two copies of the tested mutation. Breeding a carrier with a non-carrier, there is a 50% chance that a litter will have one copy of the tested mutation.

Please note that the descriptions above are generalized based on reported disease-condition patterns. When planning a breeding program, it is important to look at the corresponding online test documentation for more detailed information on the condition and any exceptions.

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OPTIMAL SELECTION™ FELINE DNA TEST TERMS AND CONDITIONS

Optimal Selection™ (Optimal Breeding Solutions) is a proprietary process designed and developed by the owner to combined cats selling to it (-this possibility the genetic compatibility of potential breeding pairs and it). It's identify specific alleles or DNA mutations that are associated with certain inherited disorders, traits, and characteristics in domestic cats and provides to cat owners and breeders information on the genetic risk of

Upon receipt of your cat's DNA sample, Nexus Health will analyze your cat's DNA to determine chromosomal anomalies and genotype for certain genes and genetic variations associated with certain inherited disorders, traits, and characteristics in domestic cats. The presence of certain alleles and mutations are associated with certain inherited disorders, traits, and characteristics in domestic cats. Nexus Health will provide you with a report of the results of the analysis of your cat's DNA sample (the "Test Results") obtained by the Optimal Selection™ analysis to understand that you agree that the accuracy, timeliness, results and interpretation of the Test Results and the Optimal Selection™ analysis depend in part on information provided by third parties and that Nexus Health does not guarantee the accuracy, completeness, timeliness, or usefulness of any information provided by third parties.

Tests results may be disposed of or stored at Nexus Health's option and will not be returned. Please view the full Nexus Privacy Policy at https://www.optimalselection.com/privacy-policy for information on how Nexus Health may use your DNA sample and Test Results. Optimal Selection™ does not make receipt or more information or alternative regarding the breed structure of your specific mamma cat.

Optimal Selection™ provides assessments for individual cats and potential mates with no guarantee similar to the pheno(m)-ic(m) expression of future offspring. Nexus Health does not guarantee the accuracy of the information provided to you or the results of any Test Results or assessments, or new results. If for any of changes occurring. This product is in an online services. It may be altered or changed, additions, or removals of such information in the Optimal Selection™ database or sign-in changes to download or other changes to the Optimal Selection™ database or the Optimal Selection™ analysis, or Nexus Health may cease to provide the Optimal Selection™ analysis or Optimal Selection™ database or other changes and have Nexus Health shall not be liable for any such changes.

You agree to Breeding Health Information related to ordering process, payments, paperwork and sample delivery. You also hereby agree that Nexus Health may use your DNA sample and Test Results for its internal research and development purposes. You cannot sell the use and entitlement to obtain and supply samples for Breeding Health.

In the unlikely event that it is not possible to provide an analysis for example due to an insufficient DNA sample or that an error in the analysis process occurs, Nexus Health will make reasonable commercial efforts to provide you with a replacement test or a refund of the purchase price. Nexus Health shall not be liable for any other damages or losses resulting from such failure to provide an analysis or any other error in the analysis process.

Nexus Health reserves the right to use any third party of its choice to undertake the testing, analysis or laboratory services for the analysis.

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