Orivet

Genetic Comprehensive Report

Animal Name: Murphy

Owner:
Ryan Sevil
Membership Number : Not assigned
Member Body/Breed Club: Not assigned

Approved Collection Method: No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Owner's details

Name:	Ryan Sevil

Animal's Details

Registered Name :	
Pet Name :	Murphy
Registration Number :	
Breed :	Cocker Spaniel
Microchip Number :	953010004908247
Sex :	Intact Male
Date of Birth :	16th Sep 2020
Colour :	Golden

Sample Collection Details

Case Number :	23E04690
Collected By :	
Approved Collection :	No
Sample Type :	SWAB

Test Details

Test Requested :	Cocker Spaniel – Full Breed Profile
Pet Name :	Murphy
Date of Test :	10th Mar 2023

Authorisation

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported:

.....

George Sofronidis BSc (Hons)

.....

Dr Noam Pik BVSc, MAVS

bsi ISO 9001 Quality Management

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Animal's Details

Registered Name :	
Pet Name :	Murphy
Registration Number :	
Breed :	Cocker Spaniel
Microchip Number :	953010004908247
Sex :	Intact Male
Date of Birth :	16th Sep 2020
Colour :	Golden

P1_2	A A	P3_2	C C	P3_3	G G	P11_3	C C	P12_1	G G	P24_2	A G	P12_3	A A	P30_3	A A
P13_1	A C	P24_3	C C	P31_1	A C	P28_3	A T	P31_3	G G	P25_1	G G	P32_2	C G	P13_2	A A
P13_3	A A	P25_2	G G	P25_3	C C	P32_3	A A	P33_1	G G	P14_1	A T	P10_1	G G	P26_1	A G
P33_3	G G	P26_2	A A	P14_2	C C	P26_3	G G	P14_3	C C	P15_1	G G	P34_1	A A	P34_2	A G
P34_3	A C	P10_3	A A	P15_2	G G	P15_3	A C	P16_3	G G	P35_1	G G	P35_2	G G	P36_1	C C
P17_1	A G	P36_2	C C	P37_2	A G	P17_2	A A	P29_1	C G	P37_3	G G	P38_1	C C	P27_1	G G
P17_3	A A	P27_2	A A	P4_3	G G	P18_2	C C	P18_3	C C	P5_1	G G	P11_1	G G	P19_1	T T
P19_2	G G	P5_2	G G	P19_3	G G	P2_1	G G	P2_3	A A	P27_3	T T	P20_1	A A	P20_3	A A
P5_3	G G	P11_2	C C	P6_2	A A	P6_3	C C	P21_1	A A	P21_3	A G	P22_2	C C	P28_1	G G
P7_1	C C	P7_2	A G	P28_2	G G	P7_3	A A	P29_2	G G	P8_1	A G	P22_3	G G	P8_2	A G
P8_3	A A	P23_1	C C	P9_3	A T	P23_2	C C	P23_3	A G	P24_1	G G	P3_1	A G	P38_2	A G

Genetic Comprehensive Report

Animal's Details

Registered Name :	
Pet Name :	Murphy
Registration Number :	
Breed :	Cocker Spaniel
Microchip Number :	953010004908247
Sex :	Intact Male
Date of Birth :	16th Sep 2020
Colour :	Golden

BICF2G630103624	A C	BICF2G630111735	A G	BICF2G630122583	A G	BICF2G630133028	G G
BICF2G630133994	G G	BICF2G630149030	A A	BICF2G630200354	A A	BICF2G630209886	A A
BICF2G630220326	A A	BICF2G630221287	A G	BICF2G630264994	G G	BICF2G630276039	A A
BICF2G630276136	A A	BICF2G630306265	A G	BICF2G630326688	A G	BICF2G630328172	A G
BICF2G630328323	A A	BICF2G630367177	A C	BICF2G630409193	G G	BICF2G630453264	C C
BICF2G630474528	A A	BICF2G630499189	A G	BICF2G630539759	A G	BICF2G630552597	G G
BICF2G630653298	A G	BICF2G630666362	A A	BICF2G630691635	G G	BICF2G630704611	A G
BICF2G630708384	A A	BICF2G630762459	C C	BICF2G63078341	G G	BICF2G63088115	G G
BICF2P1010945	A G	BICF2P105070	A A	BICF2P1138733	G G	BICF2P1159837	A G
BICF2P1181787	A A	BICF2P1192522	G G	BICF2P1226745	A G	BICF2P1286728	A G
BICF2P1362405	A G	BICF2P1369088	A G	BICF2P1391407	G G	BICF2P164304	A A
BICF2P184963	A A	BICF2P251850	C C	BICF2P277987	G G	BICF2P345488	G G
BICF2P401677	A G	BICF2P414351	G G	BICF2P42825	A A	BICF2P452541	A A
BICF2P457665	A A	BICF2P464536	G G	BICF2P465276	G G	BICF2P46604	A A
BICF2P46672	G G	BICF2P496466	A G	BICF2P496837	G G	BICF2P567552	A G
BICF2P590440	A G	BICF2P600196	A G	BICF2P615597	A A	BICF2P635478	G G
BICF2P651575	A G	BICF2P651577	A G	BICF2P70891	A C	BICF2P725743	C G
BICF2P728698	G G	BICF2P789367	G G	BICF2P805553	A G	BICF2P840653	A A
BICF2P885380	G G	BICF2P923421	G G	BICF2P950116	A A	BICF2P963969	A A
BICF2P998036	A A	BICF2S22912385	A A	BICF2S22926284	G G	BICF2S22953709	A A
BICF2S23018785	G G	BICF2S23111132	G G	BICF2S23138418	A G	BICF2S23141330	T T
BICF2S23214514	A C	BICF2S23326150	A A	BICF2S23329382	A C	BICF2S23357186	G G
BICF2S2338108	A A	BICF2S23434277	C C	BICF2S23529290	A G	BICF2S23535154	A A
BICF2S23614068	A C	BICF2S2399705	G G	G1425f16S28	G G	TIGRP2P255960_rs9030578	A A
TIGRP2P283310_rs8881748	G G	TIGRP2P328303_rs8531882	A C	TIGRP2P354499_rs9162547	A G	TIGRP2P356245_rs8830240	A A
TIGRP2P362535_rs9130694	A G	TIGRP2P389035_rs9038546	G G				

Genetic Comprehensive Report

Animal's Details

Registered Name :	
Pet Name :	Murphy
Registration Number :	
Breed :	Cocker Spaniel
Microchip Number :	953010004908247
Sex :	Intact Male
Date of Birth :	16th Sep 2020
Colour :	Golden

BICF2S23124313	A A	BICF2S23126079	A A	BICF2S23246455	A G	BICF2S23250041	C C
BICF2S23333411	A A	BICF2S23356653	A A	BICF2S23429022	N R	BICF2S23449478	G G
BICF2S23519644	G G	BICF2S2351979	A G	BICF2S2359809	A G	BICF2S236196	A A
BICF2S23626625	C C	BICF2S23648905	G G	BICF2S23649947	A A	BICF2S23713161	G G
BICF2S23737033	A A	BICF2S24511913	A G	TIGRP2P106843_rs8858816	G G	TIGRP2P116826_rs8741680	G G
TIGRP2P164720_rs8839809	A G	TIGRP2P177606_rs8886563	C G	TIGRP2P215708_rs8686029	A A	TIGRP2P316532_rs8597522	G G
TIGRP2P372104_rs9153277	G G	TIGRP2P402042_rs9121006	G G	TIGRP2P406551_rs9235397	A A	TIGRP2P407751_rs8803124	A C
BICF2G630646431	A A	BICF2G630102146	G G	BICF2G630149581	G G	BICF2G630159183	A G
BICF2G630170631	C C	BICF2G630187649	A A	BICF2G630187658	G G	BICF2G630204463	A A
BICF2G630209373	A A	BICF2G630209508	G G	BICF2G630255439	A G	BICF2G630271966	A A
BICF2G630274628	A G	BICF2G630307199	A A	BICF2G630340940	G G	BICF2G630340944	G G
BICF2G630365778	A A	BICF2G630382763	G G	BICF2G630437783	A A	BICF2G630449851	G G
BICF2G630467607	A A	BICF2G630488267	G G	BICF2G630504410	A G	BICF2G630552598	G G
BICF2G630558437	A A	BICF2G630594648	A A	BICF2G630634836	A C	BICF2G630641678	A G
BICF2G630689403	A G	BICF2G630798972	G G	BICF2G630814422	A A	BICF2G63090019	A A
BICF2P1019402	A A	BICF2P103615	A A	BICF2P1060087	A G	BICF2P1104630	A G
BICF2P1141966	A G	BICF2P1173491	A A	BICF2P1183665	A A	BICF2P1193353	A A
BICF2P1216677	G G	BICF2P1226838	G G	BICF2P1232055	A A	BICF2P1271174	A G
BICF2P129347	A A	BICF2P129670	A G	BICF2P1308802	A C	BICF2P1310805	A C
BICF2P1344095	A A	BICF2P1346673	G G	BICF2P1357746	A A	BICF2P1454500	A G
BICF2P155421	C C	BICF2P157421	A G	BICF2P182473	A A	BICF2P224656	A C
BICF2P237994	G G	BICF2P246592	C C	BICF2P250787	A C	BICF2P25730	T T
BICF2P283440	A A	BICF2P345056	A A	BICF2P347679	A A	BICF2P378969	A C
BICF2P382742	G G	BICF2P415783	G G	BICF2P422152	G G	BICF2P508740	C G
BICF2P516667	G G	BICF2P553317	G G	BICF2P554817	A A	BICF2P561057	A C
BICF2P585943	A A	BICF2P624936	G G	BICF2P635172	G G	BICF2P643134	G G
BICF2P65087	G G	BICF2P651576	A G	BICF2P717226	A C	BICF2P751654	G G
BICF2P774003	A A	BICF2P798404	A A	BICF2P842510	A A	BICF2P856893	A A
BICF2P878175	A G	BICF2P935470	A A	BICF2P990814	G G	BICF2S22910736	A A
BICF2S22913753	A G	BICF2S22928800	G G	BICF2S22943825	A A	BICF2S23028732	A A
BICF2S23031254	C C	BICF2S23049416	G G	BICF2S23057560	G G	BICF2P285489	G G

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : ACRAL MUTILATION SYNDROME (SPANIEL & POINTER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : GDNF
Variant Detected : GDNF Regulatory

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : AUTOSOMAL HEREDITARY RECESSIVE NEPHROPATHY
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Collagen type IV alpha 4 chain (COL4A4) on chromosome 25
Variant Detected : Base Substitutionc.115A>Tp.Lys39STOP

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : BERNARD-SOULIER SYNDROME (COCKER SPANIEL TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : GP9 gene, chr20
Variant Detected : chr20:3025814-3028273del2460

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Owner's Name : Ryan Sevil
Pet Name : Murphy
Microchip Number 953010004908247
Approved Collection Method : No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : EXERCISE INDUCED COLLAPSE (RETRIEVER TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : DNM1
Variant Detected : Base Substitution c.767 G>T

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : PHOSPHOFRUCTOKINASE DEFICIENCY (SPANIEL TYPE)
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Phosphofructokinase muscle (PFKM) on Chromosome 27
Variant Detected : Base Substitutionc.2228G>Ap.Trp743STOP

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : POLYDACTYL/DEWCLAWS
Result : PD/PD - NORMAL, TYPICAL CLAWS (TOES) NO HINDCLAWS[1]
Gene : LMBR1
Variant Detected : chr16:19380592 (canFam3): G/A

Owner's Name : Ryan Sevil
Pet Name : Murphy
Microchip Number 953010004908247
Approved Collection Method : No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : PROGRESSIVE ROD CONE DEGENERATION (PRCD) - PRA
Result : NEGATIVE / CLEAR [NO VARIANT DETECTED][1]
Gene : Photoreceptor disc component (PRCD) on Chromosome 9
Variant Detected : Base Substitutionc.5 G>Ap.Cys2Tyr

We have scanned the DNA and the genotype of this animal is NORMAL - no presence of the disease associated variant (mutation) has been detected. This result may also be referred to as NORMAL, "-/-" or "wild type (WT)" or "homozygous negative". The animal is clear of the disease and will not pass on the disease-causing variant.

Test Reported : E LOCUS - (CREAM/RED/YELLOW)
Result : **e/e - HOMOZYGOUS FOR NON-EXTENSION [WHITE/YELLOW/APRICOT/WHEATEN]**[1]
Gene : MC1R
Variant Detected : Em (point mutation) > E (wild type) > e (point mutation) chr5:63694334-63694334: C>T

2 copies of red/yellow are present referred to as "non-extension". Dog's coat is entirely phaeomelanin based ie. red/yellow/cream/apricot/white/wheaten. Please note in some breeds an "ee" phenotype can often Colours can be cream to white rather than yellow to red. Shades can vary between littermates.

Test Reported : EM (MC1R) LOCUS - MELANISTIC MASK
Result : **E^n/E^n - NO MELANISTIC MASK (E^n) EXTENSION ALLELE**[1]
Gene : MC1R
Variant Detected : Base Substitution G>A

Dog tested negative for the melanistic mask allele. The dog will not have a black mask, and cannot pass a copy on to any offspring..

Owner's Name : Ryan Sevil
Pet Name : Murphy
Microchip Number 953010004908247
Approved Collection Method : No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : I LOCUS COLOUR INTENSITY
Result : **I/I - NO COPY OF MFSD12 INTENSITY ALLELE (NOT LIKELY TO SHOW EXTREME DILUTION)**[1]
Gene : MFSD12
Variant Detected : c.151C>T (p.Arq51Cys)

This variant is associated with the dilution of phaeomelanin which is involved in the cream/white/apricot color in dogs. Degree of intensity (dilution) will vary within and between breeds.

Test Reported : BROWN (345DELPRO) DELETION
Result : B^d/B^d - DOES NOT CARRY BROWN/RED/LIVER or CHOCOLATE [DELETION][1]
Gene : TYRP1
Variant Detected : Base Substitution (Point Mutation)

Does not carry the brown deletion codon. Please refer to the other brown variants to clarify potential colour for offspring.

Test Reported : BROWN (GLNT331STOP) STOP CODON
Result : B^s/B^s - DOES NOT CARRY BROWN/RED/LIVER or CHOCOLATE [STOP CODON][1]
Gene : TYRP1
Variant Detected : Point Mutation

Does not carry the brown stop codon. Please refer to the other brown variants to clarify potential colour for offspring.

Owner's Name : Ryan Sevil
Pet Name : Murphy
Microchip Number 953010004908247
Approved Collection Method : No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : BROWN (SER41CYS) INSERTION CODON
Result : B^c/B^c - DOES NOT CARRY BROWN/RED/LIVER or CHOCOLATE [INSERTION][1]
Gene : TYRP1
Variant Detected : Base Substitution (Point Mutation)

Does not carry the brown insertion codon. Please refer to the other brown variants to clarify potential colour for offspring.

Test Reported : LIVER [TYRP1] (LANCASHIRE HEELER TYPE)
Result : B^e/B^e - DOES NOT CARRY BROWN/LIVER [TYRP1][1]
Gene :
Variant Detected :

Test Reported : D (DILUTE) LOCUS
Result : D/D - NO COPY OF MLPH-D ALLELE (DILUTE) - PIGMENT IS NORMAL[1]
Gene : MLPH
Variant Detected : Base Substitution

Full colour, no dilute gene present. The D allele modifies the Melanophillin (MLPH) gene. This animal cannot produce "dilute" offspring. Please Note: There are other dilute variants d2 (Sloughi, Chow Chow & Thai Ridgeback) and rare d3 (Italian Greyhound & Chihuahua) so this test/result may not identify dilute in these breeds.

Owner's Name : Ryan Sevil
Pet Name : Murphy
Microchip Number 953010004908247
Approved Collection Method : No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : K LOCUS (DOMINANT BLACK)

Result :

KB / k^y or k^{br}- ONE COPY DOMINANT BLACK (KB) and ONE COPY OF NON-BLACK (k^y) dog MAY be brindled

1

Gene : CBD103

Variant Detected : Deletion of GGG

One copy of non black and one copy of ky or kbr is present. This KB will cover the A locus and all you will visualise is the base colour. Dog will express the alleles on the A locus but any and all phaeomelanin (red) in the coat will be brindled. This allele overides the ASIP (A) locus. The agouti phenotype may be altered for some breeds and therefore be brindle. There are three alleles at the K Locus with the following dominance hierarchy KB > Kbr > k. The first KB represents dominant black, the second allele Kbr represents brindling and may display A locus gene. Brindle in most breeds appears as black stripes on a red base. Please Note: At this stage no commercial genetic testing can distinguish brindle so breeders should rely on their pedigree or breed standard to exclude or include brindle phenotype.

Test Reported : A LOCUS (FAWN/SABLE;TRI/TAN POINTS)

Result : **a^t/a^t - TAN POINTS/BLACK & TAN or TRICOLOUR MAY BE BRINDLED [SEE K LOCUS]**[1]

Gene : ASIP

Variant Detected : Base Substitution 246 G>T(A82S); G>A (R83H): C>T (p.R96C)

Homozygous for black and tan/tricolour (no hidden colours) allele. Tri factored/white factored in dogs that have white points. No Bi Factoring (Black White & Tan). Animals are primarily black and have areas of pheomelanin (tan) which tends to be seen on the leg and stomach areas, the side of he head and spots above the eyes. Please note the colour and distribution of pheomelanin "tan" will be dependent on the breed and other colour genes. Please note that any genes on the "A" series will only be expressed if the K locus is kk, kkbr or kbrkbr.

Test Reported : PIED (BOTH SINE AND REPEAT VARIANTS)

Result : **S/S - NO PIEBALD, WHITE SPOTTING, FLASH OR PARTI COAT COLOUR**[1]

Gene : MITF-M on Chromosome 20

Variant Detected :

g.chr20:21836563insSINELength polymorphism (repeat CAGA) chr20:21839332-21839366 MITF-M

No copies of the Melanocyte Inducing Transcription Factor (MITF) "sp" allele detected. The dog will not pass the MITF variant on to offspring. Please note that other yet unidentified causes of colour deletion may exist. An S/S dog bred to sp/sp piebald dog will result in all S/sp offspring. If no other white-causing genes are at play (such as Irish, white head, pseudo irish, etc.) then most will end up with white chest/toes or less white. Also S/S dogs can show small white marks. This is normally congenital residual white (and not genetic) and this may also be the cause of small white marks in some S/sp dogs. Some S/sp appear phenotypically solid in color. Please note, that in some breeds other factors such as Merle may produce patterns that are similar to what is seen in a homozygous (two copies) piebald.

Owner's Name : Ryan Sevil **Pet Name :** Murphy

Microchip Number 953010004908247 **Approved Collection Method :** No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : MERLE

Result : **m [171bp] / m [171bp] - NON MERLE SOLID COAT (NO CHANGE TO COAT or EYE COLOUR)**[1]

Gene : SILV

Variant Detected :

250 base pair SINE insertion, oligo(dA)-rich tails with length polymorphism. Detects and reports all the 7 alleles on the M Locus (Mh, M, Ma+, Ma, Mc+, Mc and m)

There are many factors that may influence a Merle result, these include mosaicism (merle expressed in different cell types) or the amount of circulating merle copies within the sample type. If this result does not match your phenotype please contact Orivet to request retest or re-analysis of the sample.

Test Reported : BLACK HAIR FOLLICULAR DYSPLASIA

Result : **NEGATIVE - NOT SHOWING THE PHENOTYPE**[1]

Gene : RAB27

Variant Detected : Base Substitution G>A

Test Reported : SHEDDING (MC5R)

Result :

SHD/SHD [LOW SHEDDING] - NO COPIES OF THE SHEDDING (MC5R) VARIANT DETECTED [REFER TO R151W (IC) FOR LEVEL]

1

Gene : MC5R

Variant Detected :

The dog will (may) exhibit low or no levels of shedding. Please Note: this level is also dependent on the furnishing allele. If the dog has no IC (R151W) phenotype will be low shedding.

Owner's Name : Ryan Sevil

Pet Name : Murphy

Microchip Number 953010004908247

Approved Collection Method : No

Orivet

Genetic Comprehensive Report

Scan to authenticate this Report online

Sample with Lab ID Number 23E04690 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported

Test Reported : COAT COMPOSITION CFA28 GENE (DOUBLE/SINGLE COAT)
Result : **UDC/UDC - NO COPY OF THE DOUBLE COAT (DENSE UNDERCOAT) PHENOTYPE DETECTED**[1]
Gene : CFA28
Variant Detected :

Dog has a single coat usually associated with no undercoat. Hair length can be short or long.

Test Reported : CURLY COAT/HAIR CURL (KRT71 R151W)
Result :
NEGATIVE FOR THE KRT71 R151W (CU/CU) VARIANT - NOT SHOWING THE CURLY COAT PHENOTYPE
[1]
Gene : KRT71 (R151W)
Variant Detected : chr27:2539211-2539211: c.451C>T

Please note there are other additional curly coat genes/variant that will impact the curly coat phenotype.

Owner's Name : Ryan Sevil
Pet Name : Murphy
Microchip Number 953010004908247
Approved Collection Method : No

ISO 9001 Quality Management

Glossary of Genetic Terms (Results)

I accept terms of service and privacy policy!

NEGATIVE / CLEAR [NO VARIANT DETECTED]

No presence of the variant (mutation) has been detected. The animal is clear of the disease and will not pass on any disease-causing mutation.

CARRIER [ONE COPY OF THE VARIANT DETECTED]

This is also referred to as HETEROZYGOUS. One copy of the normal gene and copy of the affected (mutant) gene has been detected. The animal will not exhibit disease symptoms or develop the disease. Consideration needs to be taken if breeding this animal - if breeding with another carrier or affected or unknown then it may produce an affected offspring.

POSITIVE / AT RISK [TWO COPIES OF THE VARIANT DETECTED]

Two copies of the disease gene variant (mutation) have been detected also referred to as HOMOZYGOUS for the variant. The animal may show symptoms (affected) associated with the disease. Appropriate treatment should be pursued by consulting a Veterinarian.

POSITIVE HETEROZYGOUS [ONE COPY OF THE DOMINANT VARIANT DETECTED]

Also referred to as POSITIVE ONE COPY or POSITIVE HETEROZYGOUS. This result is associated with a disease that has a dominant mode of inheritance. One copy of the normal gene (wild type) and affected (mutant) gene is present. Appropriate treatment should be pursued by consulting a Veterinarian. This result can still be used to produce a clear offspring.

NORMAL BY PARENTAGE HISTORY

The sample submitted has had its parentage verified by DNA. By interrogating the DNA profiles of the Dam, Sire and Offspring this information together with the history submitted for the parents excludes this animal from having this disease. The controls run confirm that the dog is NORMAL for the disease requested.

NORMAL BY PEDIGREE

The sample submitted has had its parentage verified by Pedigree. The pedigree has been provided and details(genetic testing reports) of the parents have been included. Parentage could not be determined via DNA profile as no sample was submitted.

NO RESULTS AVAILABLE

Insufficient information has been provided to provide a result for this test. Sire and Dam information and/or sample may be required. This result is mostly associated with tests that have a patent/license and therefore certain restrictions apply. Please contact the laboratory to discuss.

INDETERMINABLE

The sample submitted has failed to give a conclusive result. This result is mainly due to the sample failing to "cluster" or result in the current grouping. A recollection is required at no charge.

DNA PROFILE

Also known as a DNA fingerprint. This is unique for the animal. No animal shares the same DNA profile. An individual's DNA profile is inherited from both parents and can be used for verifying parentage (pedigrees). This profile contains no disease or trait information and is simply a unique DNA signature for that animal.

Glossary of Genetic Terms (Results)

I accept terms of service and privacy policy!

PARENTAGE VERIFICATION/ QUALIFIES/CONFIRMED OR DOES NOT QUALIFY/EXCLUDED

Parentage is determined by examining the markers on the DNA profile. A result is generated and stated for all DNA parentage requests.Parentage confirmation reports can only be generated if a DNA profile has been carried out for Dam, Offspring and possible Sire/s.

PENDING

PENDING

TRAIT (PHENOTYPE)

A feature that an animal is born with (a genetically determined characteristic).Traits are a visual phenotype that range from colour to hair length, and also includes certain features such as tail length. If an individual is AFFECTED for a trait then it will show that characteristic eg.AFFECTED for the B (Brown) Locus or bb will be brown/chocolate.

POSITIVE – SHOWING THE PHENOTYPE

The animal is showing the trait or phenotype tested.

CLARIFICATION OF GENETIC TESTING

The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health.However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health.However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

1) Some diseases may demonstrate signs of what Geneticists call "genetic heterogeneity". This is a term to describe an apparently single condition that may be caused by more than one mutation and/or gene

2) It is possible that there exists more than one disease that presents in a similar fashion and segregates in a single breed. These conditions -although phenotypically similar - may be caused by separate mutations and/or genes.

3) It is possible that the disease affecting your breed may be what Geneticists call an "oligogenic disease". This is a term to describe the existence of additional genes that may modify the action of a dominant gene associated with a disease. These modifier genes may for example give rise to a variable age of onset for a particular condition, or affect the penetrance of a particular mutation such that some animals may never develop the condition.

The range of hereditary diseases continues to increase and we see some that are relatively benign and others that can cause severe and/or fatal disease. Diagnosis of any disease should be based on pedigree history, clinical signs, history (incidence) of the disease and the specific genetic test for the disease. Penetrance of a disease will always vary not only from breed to breed but within a breed, and will vary with different diseases. Factors that influence penetrance are genetics, nutrition and environment. Although genetic testing should be a priority for breeders, we strongly recommend that temperament and phenotype also be considered when breeding.

Orivet Genetic Pet Care aims to frequently update breeders with the latest research from the scientific literature. If breeders have any questions regarding a particular condition, please contact us on (03) 9534 1544 or admin@orivet.com and we will be happy to work with you to answer any relevant questions.