

**Marianne Kostiainen**

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17200 Vääksy



GS12 - KO11210

### **PDP1 Test (Sussex and Clumber spaniels)**

Name	Breed	Result
Spice Twice Brother Lustig	Clumber Spaniel	<b>Normal</b>
Reg. No	Chip	
FI10287/10	985121017355107	*Microchip verified.

#### **The test results will be reported as follows:**

- Normal:** The dog carries two copies of the normal PDP1 gene and has therefore no increased risk of suffering from exercise intolerance.
- Carrier:** The dog carries one mutant and one normal copy of the PDP1 gene. The dog does not develop the syndrome but can transfer the defect to approximately 50% of its offspring.
- Affected:** The dog carries two mutant copies of the PDP1 gene and will develop the disease.

Exercise intolerance syndromes are well known to be associated with inborn errors of metabolism affecting glycolysis (phosphorylase and phosphofructokinase deficiency) and fatty acid oxidation (palmitoyl carnitine transferase deficiency). A few years ago, Cameron et al. identified a canine model for profound exercise intolerance caused by a deficit in PDP1, the phosphatase enzyme that activates the pyruvate dehydrogenase complex (PDHc). The mutation is present in 20% of the dogs in Clumber and Sussex Spaniel breeds. Homozygosity for the mutation produces severe exercise intolerance.

On behalf of Genosoper Oy

Helsinki 23.5.2012

Marjut Ritala  
Senior Lab Manager

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GenoscoPER aims to highest quality in the testing process to ensure correct results. GenoscoPER warrants its test results to be accurate for the sample obtained from a animal specified in the confirmation of order, as identified by the information given by the owner of the animal. In the event of a valid claim, owner's sole remedy is a refund of the fee paid. In no event shall GenoscoPER be liable for indirect, consequential or incidental damages of any kind. Any claim must be asserted within one year of the report of the test results. By paying the invoice the client understands and agrees these testing conditions.