

## **DNA Certificate**

BE11-9065429 Nikolaas

Proven by DNA

Certificate: SEP20130114

## **Accordant International Pigeon Panel by ISAG**

Certificate issued on September 06, 2013 in Moen, Belgium Certificate updated September 06, 2013

The authenticity and updates of this certificate can be verified on "http://www.pigen.be" This certificate<sup>1</sup> ensures parentage authenticity of pigeon BE11-9065429.



Scan this QR code to verify this certificate on "http://www.pigen.be"

发送此QR码以在网址 www.pigen.be 上验证此证书

grandfather
grandmother
grandfather
grandmother



Pascal Lanneau

<sup>1</sup> This certificate is issued based on tests performed on DNA samples to PiGen by accredited veterinarians and/or FCI officials appointed by the persons that confirmed, on the date of DNA sampling, to be the respective owners of the pigeons with the ringnumbers mentioned in this certificate.

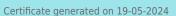
 $^2$  DNA testing is done according to internationally agreed Pigeon Panel and recommendations by ISAG (International Society of Animal Genetics). The testing labs are certified according NEN-EN-ISO 9001. The probability of exclusion (PE) of this parentage verification is higher than 99,9%.

<sup>3</sup> The following DNA markers are scientifically associated with racing performance; LDHA is a gene for a lactate dehydrogenase enzyme. DRD4 or dopamine receptor 4 gene is an indicator for character traits. CRY1 or cryptochrome 1 gene codes for a protein in the retina of the eye. Calcium/calmodulin-dependent serine protein kinase (CASK) is a gene important for synapse formation in the

brain and the nerve-muscle connection.

LDL Receptor related Protein 8 (LRP8) is a gene important for the growth of the hippocampus inside the brain. The hippocampus is important for recognition of geographic structures and navigational abilities.

Glutathion-diSulfide-Reductase (GSR) is a protein that is associated with magnetoreception abilities.



Quality

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