



Partner Company of FCI



DEC20170033

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## DNA Certificate

### Accordant International Pigeon Panel by ISAG

Certificate issued on December 02, 2017 in Moen, Belgium  
Certificate updated December 02, 2017

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 BE15-4211687.

BE15-4211687 Dark Blue Certificate: DEC20170033 Proven by DNA	BE10-3020303 Cools duiver Certificate: JAN20140320 Proven by DNA	father	grandfather
			grandmother
	BE11-4286521 Certificate: JAN20140379 Proven by DNA	mother	grandfather
			grandmother

Ruben Lanckriet

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.

<sup>2</sup> 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.

