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Africa's Genomics Company

PROGRESSIVE RETINAL ATROPHY – GR1

REPORT NO.: SA2019/71518/0409/13

Client Name:	LIANE VAN DER HOVEN
Kennel Name:	
Client Address:	SUITE 69 PRIVATE BAG X16 7200
Client Tel No.:	072 697 0841

Canine Name:	**BONYL KAPARLA**
Breed:	**GOLDEN RETRIEVER**
Microchip No.:	**953010000898757** Registration No.: **ZA005771B16**
Genetic Test:	PROGRESSIVE RETINAL ATROPHY – GR1
Result:	CLEAR

PROGRESSIVE RETINAL ATROPHY – GR1 (PRA_GR1)

Progressive Retinal Atrophy (PRA) is a collective of genetic eye disorders that share similar symptoms. There are numerous mutations that cause PRA in various canine breeds. PRA_GR1 is a late onset PRA discovered in Golden Retrievers responsible for 60% of PRA cases in Golden Retrievers.

A single cytosine insertion at c.2601 in the SLC4A3 gene causes a shift in the reading frame and subsequent premature termination. PRA_GR1 is an autosomal recessive photoreceptor degenerative disease, where two copies of the mutation are required for an individual to be affected.

Downs et al 2011. A Frameshift Mutation in Golden Retriever Dogs with Progressive Retinal Atrophy Endorses SLC4A3 as a Candidate gene for Human Retinal Degenerations. PLoS One 6(6), e21452.

SAMPLE TYPE:	EDTA BLOOD AMPULE
EXTRACTION METHOD:	DNA EXTRACTION
TEST TYPE:	SANGER SEQUENCE DETECTION

BREEDING IMPLICATIONS

		MATERNAL CANDIDATE		
		CLEAR	CARRIER	AFFECTED
PATERNAL CANDIDATE	CLEAR	ALL CLEAR	50% CLEAR 50% CARRIER	ALL CARRIER
	CARRIER	50% CLEAR 50% CARRIER	25% CLEAR 50% CARRIER 25% AFFECTED	50% CARRIER 50% AFFECTED
	AFFECTED	ALL CARRIER	50% CARRIER 50% AFFECTED	ALL AFFECTED

Disclaimer: This report does not disregard the existence of any unknown or rare variant of SLC4A3 gene that may cause PRA, nor does it disregard the existence of any unknown or rare variant of any other gene that may cause or be associated with PRA in Golden Retrievers.

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SOUTHERN AFRICA
Inqaba Biotechnical Industries (Pty) Ltd
PO Box 14335, Hatfield, 0028
Pretoria, South Africa
Tel: +27 12 343 5829
E-mail: info@inqababiotec.co.za

EAST AFRICA
inqaba biotec™ East Africa Ltd
PO Box 1846
Nairobi 00606, Kenya
Tel: +254 735 370 693
E-mail: info@inqababiotec.co.ke

WEST AFRICA
inqaba biotec™ West Africa Ltd
PMB 5320, Oyo Road,
Ibadan 200001, Nigeria
Tel: +234 805 882 7272
E-mail: info@inqababiotec.ng