

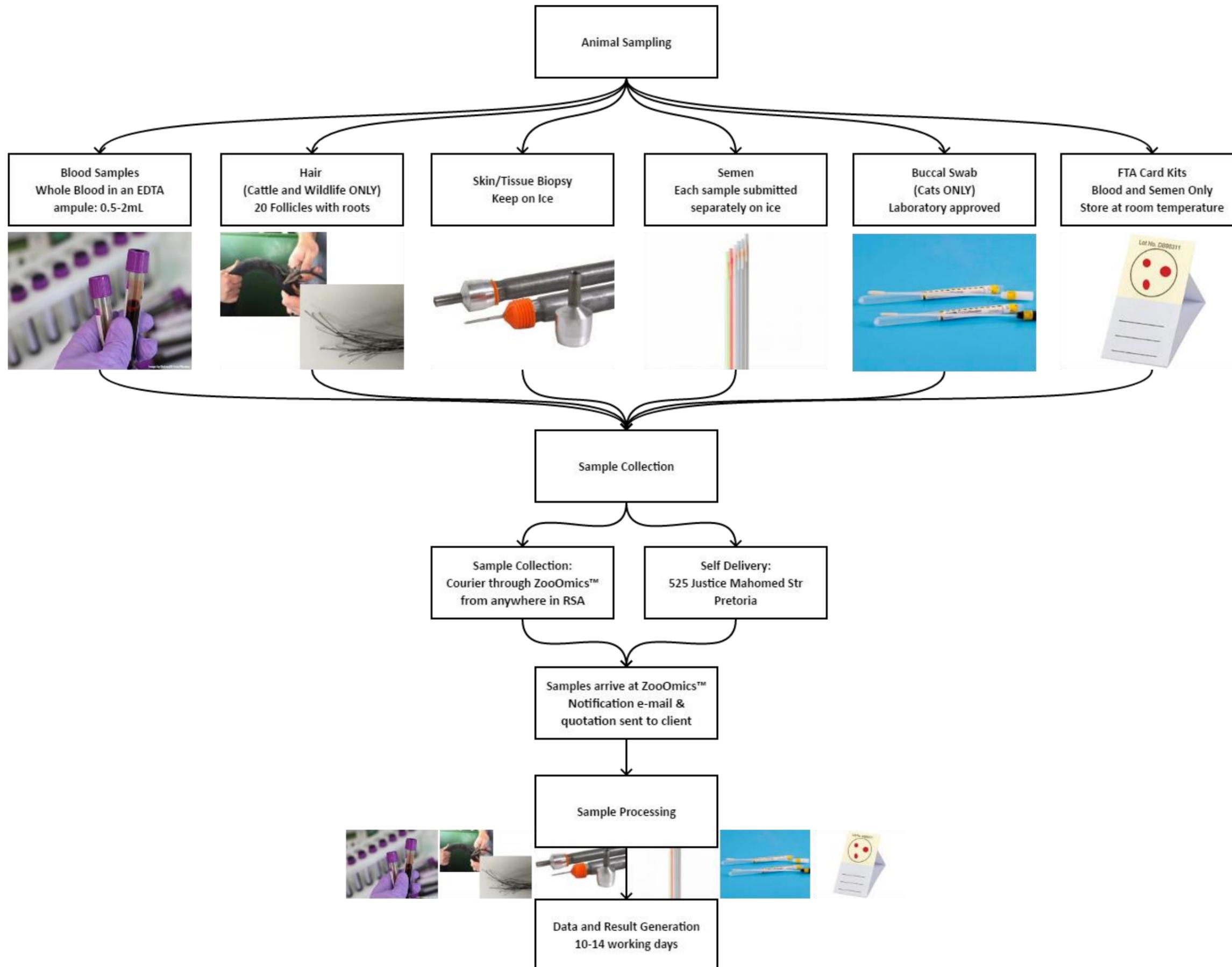
## ZooOmics™ Sample Guide

Welcome to ZooOmics™, the animal genetics division of inqaba biotec™.

We provide competitively priced, accurate and state-of-the-art genetic services to sub-Saharan Africa.

ZooOmics™ has provided accurate genetic tests and exceptional client service for over a decade. Our quality assurance protocols, expert DNA analysts and compliance with international and regional regulatory bodies provides reliable animal genetics results with a quality stamp you can trust. We provide a comprehensive genetic testing portfolio for most species: DNA profiling, parentage verification, genetic health tests and colour tests. We accept almost any sample type – our laboratory is setup to handle most sample types. We prefer the following sample types for animal genetics testing:

- Blood
- Hair (cattle and wildlife only)
- Skin/Tissue Biopsy
- Semen
- Buccal Swab (cats only)
- FTA card kits



## Blood samples

We accept Whole Blood in an **EDTA ampule**: 0.5-2mL is more than sufficient. Please request your local veterinarian to collect the whole blood sample. Please **label** the EDTA blood ampule with the corresponding animal name, tag or microchip number. Please ensure that the EDTA blood ampule is submitted with the relevant ZooOmics™ **submission form**.



## Hair samples



Hair must be **pulled** and NOT cut as DNA is contained in the hair root. Hair samples must be submitted **dry** and **clean** in an envelope provided by ZooOmics™. Collect **10-20 hairs** containing follicle and root by plucking the hair from the animal's tail using a pair of **pliers**. Please ensure that the hair sample(s) are submitted with the relevant ZooOmics™ **submission form**.

\*moisture affects the growth of bacteria and other organisms on the hair follicle

\*urine and faecal matter contain acids that affect the integrity of DNA

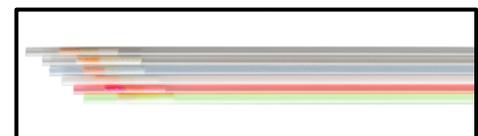
## Tissue Biopsy

Any instrument that is able to take a biopsy of tissue from an animal can be used. A **tissue punch** from an ear tag or during earmarking is ideal in cattle sampling. A **biopsy dart** is often the easiest tool when sampling wildlife. Please sterilise the instrument to prevent contamination between samples. Clearly label the tissue sample and submit with the relevant ZooOmics™ **submission form**.



## Semen

Semen samples can be submitted for most species. Used semen straws can be used for parentage verification, provided there is material left within the semen straw. Semen straws should be sent by courier and packaged well (padded envelope) to prevent sample swapping, breakage and leaking.



## Buccal Swab

4N6FLOQSwabs™ are provided by ZooOmics™ for feline genetic testing only. 4N6FLOQSwabs™ is moulded plastic applicator shaft with a regular-sized tip, coated with Nylon® fibres that are arranged in a perpendicular fashion for maximised DNA sample collection and efficient, high-quality processing for downstream genotyping applications. While handling 4N6FLOQSwabs™, it is recommended that you wear gloves and avoid touching the swab tip.



Ensure the test subject has not eaten or drunk anything 30 minutes prior to taking the sample. Remove the 4N6FLOQSwabs™ from the pouch. Insert the swab into the subjects' mouth and firmly rub the swab against the inside of the cheek 20 times. Repeat on the other side of the mouth. Remove the swab from the mouth of the subject and place into a clean envelope/transport kit (not provided). Seal and ship immediately (sample is only viable for 1.5 weeks) with the relevant ZooOmics™ **submission form**.

## FTA card kits

FTA cards are designed for the collection and protection of biological samples including blood for DNA testing. Whole blood is deposited directly onto the FTA Card. Upon contact, the proprietary chemical formulation lyses cells, denatures proteins and binds DNA to the card matrix. FTA preserves DNA on the card allowing storage for up to 10 years at room temperature, provided the cards are stored out of direct sunlight.

While handling FTA cards, wear gloves and avoid touching the sample collection area of the card.

1. Open the FTA card kit. Lay the contents of the package out on a clean and dry surface. The kit contents are as follows:

- FTA card sample Envelope
- FTA Micro Card
- Disposable lancet

2. Clean the ear/paw properly before taking the sample.

3. Prepare the disposable lancet for use. Remove the protective covering of the lancet needle. Firmly insert the lancet needle on the clean ear/paw. Securely dispose of the lancet.

4. Manipulate the FTA card by holding the sides, gently press the FTA card against the ear/paw that was pricked to deposit a drop (+/- 2-5 mm in diameter) on the FTA card (Figure 1).

5. Press again the ear/paw and obtain a second-thick drop of blood. Repeat until you obtain at least 3 drops for every test requested. Do not over saturate the FTA card.

6. Allow the sample to dry completely before submitting the sample with the relevant ZooOmics™ **submission form**.

