

## Camel 4MID® Kit (Ref. 4VDX-19K11) A Functional Assay of Sperm Quality and Male Fertility

### Camel 4MID® Kit Main Advantages

- Based on a **functional sperm parameter** called proAKAP4
- Only **few microliters required**
- Working with **fresh, chilled** or **frozen semen** in extenders
- **Easy to use**, robust and cost-saving test

### Camel 4MID® Kit Description

The **Camel 4MID® Kit (Ref. 4VDX-19K11)** is a robust ELISA kit that contains all reagents and buffers required for the quantification of proAKAP4 protein in all types of camel semen samples.



#### Product reference

4VDX-19K11

#### Specificity

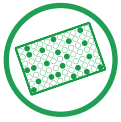
Camel proAKAP4

#### Analytical range

0 - 150 ng

#### Number of analysis

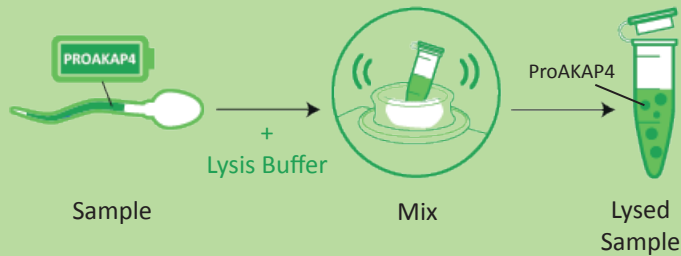
1 to 88 samples



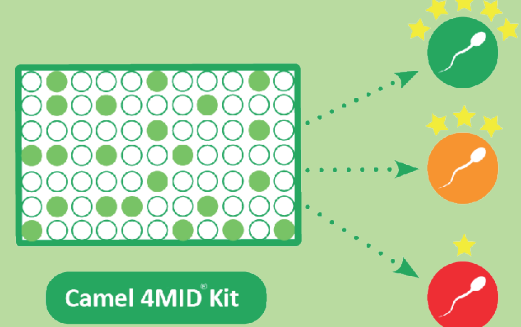
# Camel 4MID® Kit (4VDX-19K11)

## An Innovative Approach to Assess Sperm Quality

### Step one: Release of ProAKAP4



### Step two: Quantification of ProAKAP4



## Applications of the Camel 4MID® Kit:

- **Semen quality** assessments
- **Qualification** of each ejaculate / each straw
- Functional indicator of **male fertility**
- **Monitoring tool** of camel career
- Selection of sperm with **long-lasting motility**



## Background: ProAKAP4 as a Functional Marker of Sperm Motility and Male Fertility

ProAKAP4 is the **precursor of AKAP4** that is a structural protein playing a key role in **sperm motility, capacitation and fertility**. Spermatozoa **without proAKAP4** are abnormal, immobile and **infertile**. The concentrations of proAKAP4 marker are **good indicators of sperm quality and fertility** and of how the spermatozoa will stay motile and fertile overtimes.



## Main References

- Carracedo et al. (2020)** Animal Reproduction Science. Vol. 220:106448  
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**Nixon et al. (2019)** Front Cell Dev Biol. Vol. 7(319):1-18  
**Blommaert et al. (2019)** Theriogenology. Vol. 131:52-60  
**Sergeant et al. (2019)** Dairy Vet. Sci. J. Vol. 11(1): 803-811  
**Fang et al. (2019)** Developmental Biology. Vol. 454(2):118-127