

## Bull 4MID® Kit (Ref. 4VDX-18K4)

### A Functional Assay of Sperm Quality and Male Fertility

### Bull 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

### Bull 4MID® Kit Description

The **Bull 4MID® Kit (Ref. 4VDX-18K4)** is a robust ELISA kit that contains all reagents and buffers required for the quantification of proAKAP4 protein in all types of bull semen samples.



#### Product reference

4VDX-18K4

#### Specificity

Bull proAKAP4

#### Analytical range

0 - 150 ng

#### Number of analysis

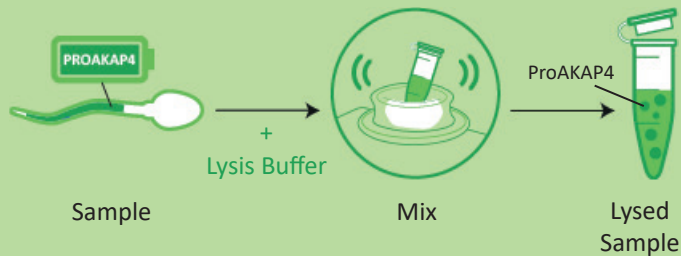
1 to 88 samples



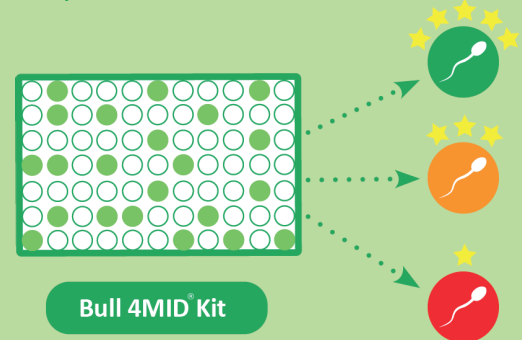
## Bull 4MID® Kit (4VDX-18K4)

### An Innovative Approach to Assess Sperm Quality and Fertility

#### Step one: Release of ProAKAP4



#### Step two: Quantification of ProAKAP4



### Applications of the Bull 4MID® Kit:

- Semen quality assessments
- Qualification of each ejaculate / each straw
- Functional indicator of male fertility
- Monitoring tool of bull 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

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**Ruelle et al. (2020)** Reproduction, Fertility and Development Vol. 32(1):145  
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**Fang et al. (2019)** Developmental Biology. Vol. 1606(19):30107-1017  
**Fu et al. (2019)** Theriogenology. Vol. 134:74-82  
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**Peddinti et al. (2008)** BMC Systems Biology. Vol. 2(19):1-13