

Who is SPQI?

SPQI (Services and Products of Quality and Innovative) is a life sciences company located in Lille (North of France). We develop, produce and commercialize **innovative tools** to study male fertility in humans and in mammals.

Our innovative products are commercialized under the «4BioDx» brand, they are all **patented** and validated by **scientific publications** and **collaborative studies**.

SPQI is today a unique and a well-recognized manufacturer of **innovative tests to evaluate semen quality and fertility**.

All 4BioDx products are manufactured in **France**.



4BioDx® is a registered trademark of SPQI

To discover all our innovative products
please visit our website:
www.4biodx-breeding.com

How to order?

Write us on **www.4biodx-breeding.com** via our contact form or **send your purchase order** by email or courier.



By e-mail:

contact@4biodx-breeding.com



By courier:

SPQI SAS
1 Place de Verdun
59045 Lille
FRANCE

We deliver our innovative products **worldwide directly** or via our **distributor network**.

Please write us at **contact@4biodx-breeding.com** to have an updated list of our distributors or visit our website **www.4biodx-breeding.com**.



V1_0419.2



• **Innovative Sperm Quality Biomarkers** •

Goat 4MID® Kit

A Functional Assay of Sperm Quality and Fertility in Goat



ProAKAP4 A Marker of Fertility



ProAKAP4 is the **first innovative marker** of semen quality and fertility. ProAKAP4 is the **precursor of AKAP4** and is playing a key role in **flagellar structure, motility, capacitation, hypermotility and fertility**. Spermatozoa **without proAKAP4 or AKAP4** are abnormal, immobile and **infertile**.

*The concentration of proAKAP4 is a good indicator of **sperm quality** and of how the spermatozoa can **keep its motility high** and **efficient up to the fertilization site**.*



The dosage of the proAKAP4 using the 4MID® kit brings then:

- **Objective information** on semen **quality**
- **Qualification** of each ejaculate / each straw
- An indicator of **spermatogenesis quality**
- A functional indicator of **fertility**
- A **monitoring tool** of goat career



If you are not familiar with lab test, do not hesitate to contact us at contact@4biodx-breeding.com to set up a trial analysis of your samples.

Goat 4MID® Kit

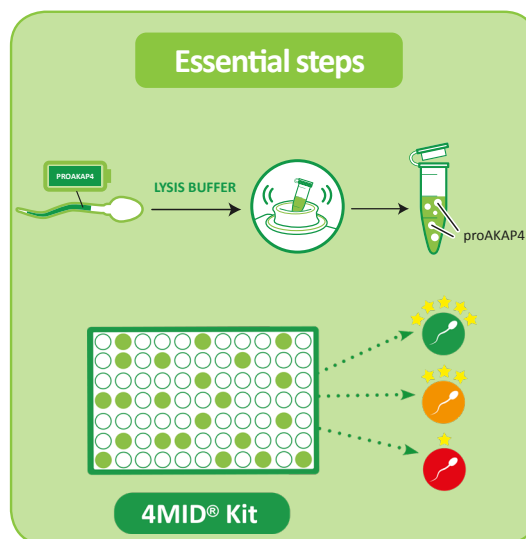
The **Goat 4MID® kit** (Ref. 4VDX-18K9) improves the **routine analysis of semen quality**. This **complete ELISA kit** includes a **precoated microplate with all reagents and buffers** that allow to quantify proAKAP4 marker in goat semen samples.

Reference	Designation
4VDX-18K9	Goat 4MID® Kit

Main advantages of the **Goat 4MID® kit**:

- Working with **fresh ejaculate** or with **frozen semen** in extenders
- Only **few microliters required**: 30 to 50 µL
- **87 tests** per kit
- Achieved in less than 2 hours
- **Easy to use** immunoassay

The higher the concentration of proAKAP4 is, the better is the quality of the semen.



An Innovative Approach to Semen Analysis

The mouse monoclonal anti-AKAP4 antibody (Ref. 4BDX-1805) recognizes the **carboxy-terminal region of A-kinase anchor protein 4** (AKAP4).

The anti-proAKAP4 antibody (Ref. 4BDX-1901) recognizes specifically the **precursor of A-kinase anchor protein 4** (proAKAP4).

Reference	Specificity
4BDX-1805	Anti-AKAP4 monoclonal antibody
4BDX-1901	Anti-proAKAP4 monoclonal antibody

Monoclonal antibodies against proAKAP4 and AKAP4 are suitable for **Flow Cytometry** and for **Immunofluorescence** applications by classical microscopy and by CASA (Computer-Assisted Sperm Analysis) to **assess sperm morphology and sperm motility**.



Main references

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Delehedde et al. (2018) Animal Reproduction Science 194:24
Sergeant et al. (2016) Animal Reproduction Science 169:125-126
Baccetti et al. (2005) Human Reproduction 20:2790-2794
Miki et al. (2002) Developmental Biology 248:331-342

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