

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 registred 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.



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• *Innovative Sperm Quality Biomarkers* •

Pig 4MID® Kit

A Functional Assay of Sperm Quality and Fertility in Pig



ProAKAP4 A Marker of Fertility



ProAKAP4 is the **first innovative marker** of semen quality and fertility. ProAKAP4 is the **precursor of AKAP4** that is playing a key role in **flagellar structure, motility, capacitation and hypermotility before fertilization**. Spermatozoa **without proAKAP4 or AKAP4** are abnormal, immotile 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 Pig 4MID® Kit (Ref. 4VDX-18K2) brings then :

- Objective information on semen **quality**
- A functional indicator of **fertility**
- A predictive parameter of **prolificity**
- **Qualification** of each ejaculate / each dose
- Indication of the **dose quality over time**
- An indicator of **spermatogenesis quality**
- A **monitoring tool** of pig 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.

Pig 4MID® Kit

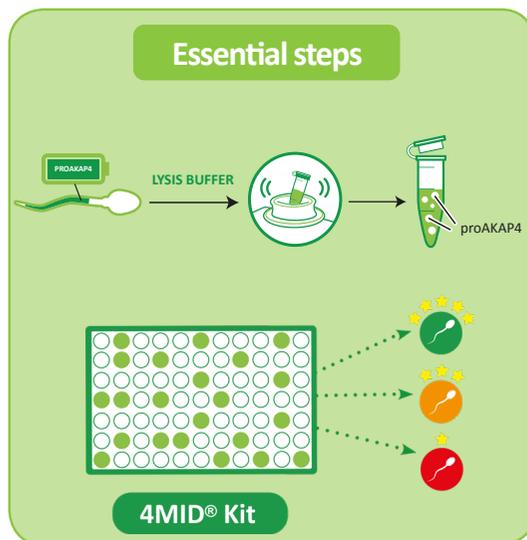
The **Pig 4MID® Kit** (Ref. 4VDX-18K2) improves the **routine analysis of semen quality for better artificial insemination results**. This **ELISA kit** includes **ready-to-use reagents** to quantify proAKAP4 sperm parameter in pig semen samples.

Reference	Designation
4VDX-18K2	Pig 4MID® Kit

Main advantages of the **Pig 4MID® Kit**:

- Use with **fresh ejaculate, chilled** or **frozen semen**
- Only **few microliters** required: 20 to 50 µL
- **88 tests** per kit
- Achieved in less than 2 hours

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



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An Innovative Approach For Semen Analysis



Field results highlighted that the proAKAP4 amounts as measured with Pig 4MID Kit® are correlated with a reduced **number of death at birth** and a **higher prolificity**.

Fertility

Pig 4MID® ProAKAP4 (ng/10 millions of spz)	Total borns
< 42	882
> 42	1011

Prolificity

Pig 4MID® ProAKAP4 (ng/10 millions of spz)	Prolificity
< 42	12.57±1.19
> 42	14.62±1.02
	± 2.05 piglets



Main references

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