

ISAS

PRÖISER
Projectes | Serveis R+D



SOLUTIONS FOR
ASSISTED REPRODUCTION

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ISAS LAB

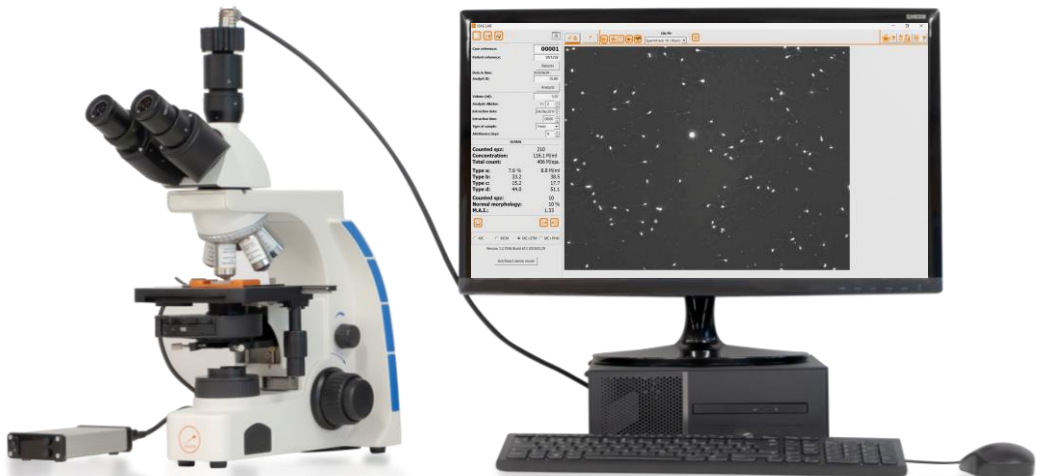
A COMPLETE REPORT IN JUST ONE CLICK

ISAS Lab is a system for human semen quality analysis on assisted reproductive techniques.

The system assesses a few **mobility** characteristics, sperm **concentration** and **morphology** for a fast and reliable determination of sperm count always following the WHO criteria.

GENERAL DESCRIPTION AND COMPONENTS

The system is conformed by the analysis software, a trinocular vertical microscope, a CMOS camera and a Lenovo desktop including tower, screen, mouse and keyboard.



UB 200i

MICROSCOPE FOR ANDROLOGY AND RESEARCH LABORATORIES

UB200i is our contribution for the application of advanced microscopy on assisted reproduction and **clinical laboratories**, as well as **biological and medical research**, from a daily task to further research.

This advanced upright microscope enables the following microscopy methods: bright field, dark field, polarization, phase-contrast and fluorescence.

MAIN FEATURES

HEAD

- Binocular or trinocular.
- 30° inclined.
- Diopter adjustable.
- C-mount adapter (trinocular).
- Interpupillary distance: 48-75mm.
- Ocular WF10X/20.



BODY

- Infinity Plan objectives 4X/0.13, 10X/0.30, 40X/0.70 and 100X/1.25.
- Coaxial coarse and fine focusing knob, height adjustable.
- Revolving nosepiece: quintuple, inward facing.
- Power supply 110/220V, 50/60Hz, 5W.
- LED lamp 4W.



PROISER C13-ON

Color CMOS camera to attach to the microscope enabling the sperm visualization on screen.

MAIN FEATURES

- Image sensor: 1/2" CMOS Color.
- Resolution: 1280×1024, 8/10 bits per pixel.
- Frame rate up to **210 fps**.
- Dimensions: 50 (rounded) x 26.2 mm.
- Power consumption: 1.3 Watt.
- Lens mount: C Mount.
- Image data interface: USB 3.0.



LENOVO

Desktop computer used to analyse the semen sample on the ISAS Lab software.
Includes mouse and keyboard.

MAIN FEATURES

- Processor: Core i3 or i5.
- Memory: 4GB.
- Hard-drive: 500GB (7200 rpm).
- Optical: DVD ± RW.
- Monitor: Full HD 22".
- Windows 10 Pro 64 bits.



ISAS LAB

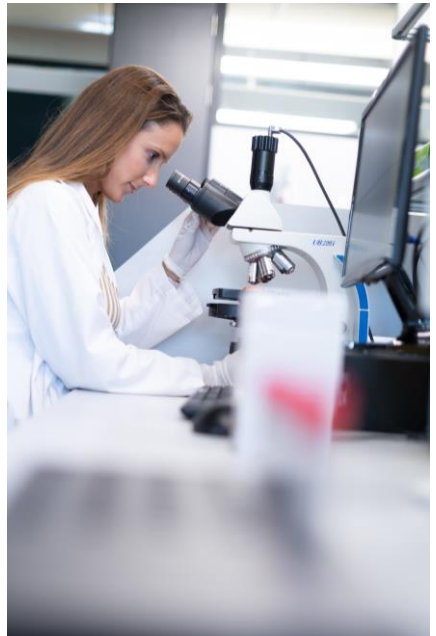
A COMPLETE REPORT IN JUST ONE CLICK

The device can be used without prior required knowledge on sperm quality determination as it automatically detects the sample parameters of interest and analyses them.

A final report is generated which **just one click** on the last step of the process containing all the characteristics needed to establish the semen sample quality.

BENEFITS OF USE

- A **complete semen analysis** in just a few clicks.
- Analyse **motility** and **concentration** at once.
- Full cell **morphology** analysis.
- Get a fully customizable report.
- Spend less than 1 second per analyzed field.
- Easy to use.
- Rapid and reliable diagnostic.



ISAS v1

RESEARCH & QUALITY CONTROL

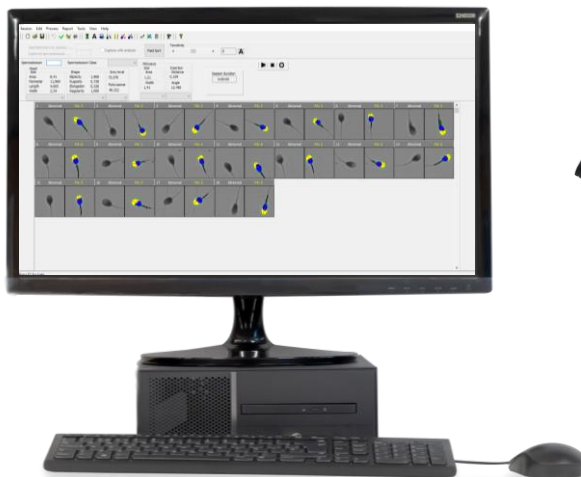
Besides ISAS Lab we have developed a **multispecies** system for semen quality analysis on assisted reproductive techniques: ISAS v1.

The system assesses **sperm motility, morphometry, DNA fragmentation** and **vitality**.

Its application fields are human and veterinarian clinics, scientific research, livestock production and pharmaceutical and reproductive toxicology. Furthermore, works in different hardware and operating-system conditions, in order to be adapted, as much as possible, to needs of the user.

GENERAL DESCRIPTION AND COMPONENTS

The system is conformed by the analysis software, UB 200i with a reflected fluorescence attachment and the same CMOS camera and Lenovo desktop included in ISAS Lab.



ISAS v1

RESEARCH & QUALITY CONTROL

The device is designed for **quality control programs** and saves the analysis results in different formats of videos and images which guaranteeing **compatibility** with any computer.

The equipment that conforms ISAS v1 is completely **modular** so each module works jointly and independently. As a result of this you would be able to use most of components available in your lab, from the microscope to the computer, if they fulfill the minimum requirements of the system.

BENEFITS OF USE

- A complete semen analysis in just a few steps.
- Analyse **motility, morphometry, DNA fragmentation** and **vitality** at once.
- Works with many **sperm samples from different animals** such as human, stallion, bull, boar, and more.
- Get a fully customizable report.
- Easy to use.
- Rapid and reliable diagnostic.



SPERMTRACK

THE NEW COUNTING CHAMBER

SPERMTRACK is a counting chamber for the **semen displacement procedure** designed to eliminate most disadvantages presented by traditional counting chambers.

SPERMTRACK is available in two depths:

- **SPERMTRACK 10.** 10 μm depth.

Traditionally used for human clinical analysis. Available with grid and without grid.



- **SPERMTRACK 20.** 20 μm depth.

Follows the latest **recommendations of WHO 2010**, also extending its use for veterinary purposes, due to the more natural freedom of sperm cell movement. Available with grid and without grid.



BENEFITS OF USE

- **Decreases surface tension** because of its glass composition.
- Ergonomic design which facilitates its use, cleaning and storage.
- **Prevents** the generation of common **visual artifacts** often found in microscopy.

TRUMORPH

UNIVERSAL TECHNIQUE FOR THE ANALYSIS OF SPERM MORPHOLOGY

Trumorph is the definitive technique for the observation of sperm morphology.

Traditional cell visualization methods required a previous staining process which modified the sperm morphology and took at least 2 hours. By using **Trumorph** this time is reduced to **just 25 seconds** and the cells are immobilized **without seminal plasma alteration** and avoiding the intrusion of **visual artifacts**.

HOW TO USE IT?

1. Place a drop of the sample on the slide and overlay it with a coverslip.
2. Introduce the slide inside the device and it will apply a slight pressure of 6 kPa while rising the temperature to 45°C.
3. Remove the slide from Trumorph.



BENEFITS OF USE

- Rapid and easy method.
- Allows to analyse the real morphology of live cells using the 40x negative objective in the phase contrast microscope.
- Does not need any reactive or additional accessories.

ISAS DISPOSABLE COUNTING CHAMBERS

THE REAL ALTERNATIVE

ISAS disposable chambers are the solution for a **better filling and reading** process.

The improved design of more chambers in one slide makes it **cost effective** and **easy to use**.

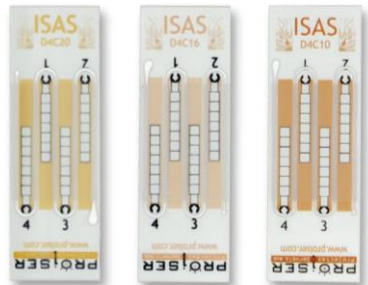
Our counting chambers are the following:

ISASD4C

Allows the visualization of **four samples** per slide, having every disposable counting chamber box 25 slides for 100 analysis.

ISASD4C is available in three depths:

1. ISASD4C10: 10 μm .
2. ISASD4C16: 16 μm .
3. ISASD4C20: 20 μm .



ISASD4C-L

Allows the sample **visualization on a wide range of CASA systems** not developed by PROISER.

ISASD4C-L works just like ISASD4C with our quality guarantee as main benefit.

Available in 20 μm .



ISAS DISPOSABLE COUNTING CHAMBERS

THE REAL ALTERNATIVE

ISASD2C

Allows the visualization of **two samples** per slide, having every disposable counting chamber box 25 slides for 50 analysis.

ISASD2C is available in two depths:

1. ISASD2C10: 10 μm . Recommended by WHO 1999.
2. ISASD2C20: 20 μm . Recommended by WHO 2010.



ISASD2C-G

For those laboratories without automated sperm analyzers we offer disposable counting chambers **with grid** (Makler-like) allowing **manual counting**. Two samples per slide can be visualized, having every disposable counting chamber box 25 slides for 50 analysis.

Every slide has **two areas**: one to evaluate the **motility** and another to **sperm count**. Its design enables an **homogenous sperm distribution**, ensuring a repeatable and accurate analysis

ISASD2C is available in two depths:

1. ISASD2C10G: 10 μm .
2. ISASD2C20G: 20 μm .



ISAS DISPOSABLE COUNTING CHAMBERS

THE REAL ALTERNATIVE

BENEFITS OF USE

- **Smart filling design.** Each chamber on the slide has an arrow indicating where to place the tip, and a line indicating when to stop the filling process avoiding the sperm drifting.
- **Smart reading design.** Getting a homogenous semen sample is quite difficult and as a result of that we have designed counting chambers which improve sperm concentration homogeneity and define 7 areas where sperm can be counted, reducing possible variations.
- **Non-toxic.** The slides' glass without borosilicate convert is non-toxic for the spermatozoa allowing to check motility and other characteristics without any further issue.



HEATING DEVICES

ISASPC

Heated plate for **slides and tubes** (Eppendorf, Falcon...).

Temperature can go up to 70°C with a heating time shorter than 8 minutes.

0.1°C resolution and 0.5°C precision.

According to the tubes capacity there can be two sizes:

1. ISAS PC 12T. 12 tubes.
Dimensions: 270x70x40mm.
2. ISAS PC 40T. 40 tubes.
Dimensions: 270x130x40mm.



SLIM HEATER

Heater for a **large amount of samples**.

5 minutes heating time (from 22 to 37 °c).

0.1°C resolution and 0.5°C precision.

Available in two sizes:

1. 330X230x10 mm.
2. 400X330x10 mm.



MICROSCOPE STAGES

HEATED STAGE

Our heated microscopy stage allows you to keep your **samples tempered during the whole analysis** as its patch heating technology enables temperature control and independent multi-area heating.

The basic system works at a prefixed temperature, especially for quality control programs, and stage temperature can be controlled manually.

Because of its adaptability it can be used by any microscopy brand.



ISAS[®] Cooler

Our ISAS[®] Cooler designed for **sperm analysis at low temperatures**. Cooling time from room temperature to 4° C. 0.1°C resolution and 0.5°C precision.

It can be used in any microscopy brand available on the market.



LABORATORY MATERIALS

LIQUEFACTION CUP

The complete sample liquefaction is necessary for an **optimal analysis of sperm motility and concentration**.

To facilitate this process we have developed a liquefaction cup which contains solid alpha-chymotrypsin at the base to facilitate and accelerate the liquefaction of viscous semen.

HOW TO USE IT?

1. Put the semen directly in the cup.
2. Wait 3 minutes.
3. Extract the sample volumen needed for the analysis.



STAINING KITS

The following staining kits are available:

- Rapid Papinicolau.
- Eosine nigrosine.
- Host.
- Diff-Quick.
- Fluorescent dye.
- Neo-Clear.
- Neo-Mount.
- Halosperm G2.

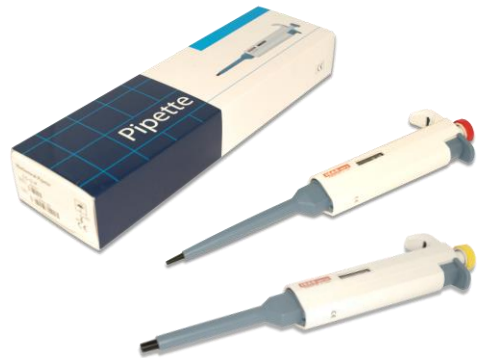


LABORATORY MATERIALS

PIPETTES AND TIPS

The following pipettes are available, which can be purchased with or without their specific tips:

- 0.1 – 1 μL
- 10 – 100 μL
- 100 – 1000 μL



SAMPLE TUBES

The 5 mL sample tubes for laboratory are available:

They have the perfect size to be used in ISASPC.

Every sample tubes bag contains 1000 units.



WHY CHOOSE US?

PROiSER R+D is a company focused on research and development of **automatic diagnostic systems**. Our main line of products is ISAS (Integrated Sperm Analysis System) family, composed by CASA (Computer Assisted Semen Analysis) systems, re-usable and **disposable counting chambers** and other tools needed for sperm analysis.

Our sperm analyzers are one of the most advanced technological solutions for sperm analysis, being able to test more than 2000 sperm cells per field and more than 80000 sperm cells per analysis.

We offer smart and fast equipments that allow you to get the best-balanced doses dilution for seminal doses production, or to realize a full clinical seminal analysis in a few seconds.

Choose PROiSER and you will be choosing **sperm analysis expertise and quality**.



FOR FURTHER INFORMATION VISIT US
AT WWW.PROISER.COM

FIND US

C/ Catedrático Agustín Escardino, 9
Building 3 (CUE), Floor 1
46980 Paterna – Spain

CONTACT US

info@proiser.com