CaniPlus Canine semen extenders



Assure low cost, high conservation performance of dog semen

As a crucial step in the artificial insemination process, incorporating an extender medium is **essential for precise analysis results and semen preservation**.

Whether chilled or frozen, raw semen must be diluted with an extender if it is to be preserved successfully. By providing the necessary nutrients and protective properties, the extender ensures the sperm retains its **motility and fertility**, vital for successful insemination and thus breeding results.

The steps of **processing dog semen** in terms of preparation, diluting, packaging, storage, and shipping depend on whether the insemination is to be performed with fresh, chilled, or frozen semen. The choice of the right extender is central to this.

In 2005, Minitube developed the **first long-term extender** for dog semen, and in 2012, the **first protein-free extender**.

Since then, Minitube dog semen diluents have been proving their worth in global markets as well as in many scientific test series.

With **CaniPlus**, Minitube provides a **reliable product series** offering a range of canine semen extenders suitable for any desired purpose.



100% of users rate CaniPlus Chill LT with 4 out of 4 stars*

"On another positive note, I had a semen sample refrigerated for 13 entire days using the CaniPlus Chill LT, and woke it up to an outstanding 80% motility." "This is the best extender on the market, hands down. I won't even try another extender." "Consistent quality every time." "Best extender I have ever used! Had one semen sample I kept chilled a week in it because my girl had a split heat. Semen looked good as day one." "Must have for all breeders."









- Are 100% animal protein free
- Contain an **additive** that prevents the need to add egg yolk. The additive also protects the sperm cells during chilled storage and from damage caused by temperature variations during shipping, prevents oxidative stress, and neutralizes degrading metabolites negative effects.
- Maintain a minium of 70% of initial motility during the given period for chilled storage/transport
- Have a shelf life of 24 months from date of production when unopened and stored at $+2^{\circ}$ C to $+8^{\circ}$ C
- Contain antibiotics; ready-to-use

CaniPlus Chill ST, 20 ml

13700/0040

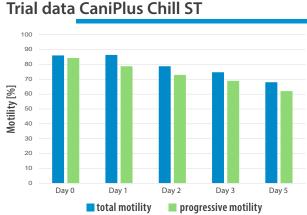
- Short-term culture medium for canine semen (\leq 5 days) •
- Ideal for short-term shipping

CaniPlus Chill LT, 20 ml

- 13700/0045
- Long-term culture medium for canine semen (\leq 10 days)
- Ideal for international/domestic shipping

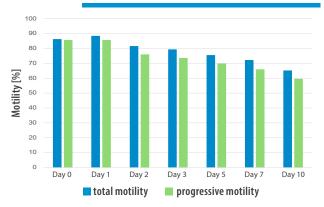






79% of total motility and 75% of progressive motility maintained at day 5 (reference point at day 0)

Trial data CaniPlus Chill LT



^{76%} of total motility and 70% of progressive motility maintained at day 10 (reference point at day 0)



Minitube provides a comprehensive protocol for all extenders.

Extenders for frozen dog semen

CaniPlus Freeze 1-step, 20 ml

13700/0060

- One-step culture medium for freezing canine semen
- Complete semen processing at room temperature, followed by equilibration at +5°C, and subsequent freezing of the straws
- Requires addition of fresh egg yolk
- Contains an antibiotic and glycerol

CaniPlus Freeze 2-step,

13700/0065

Fraction A 20 ml, Fraction B 10 ml

- Two-step culture medium for freezing canine semen
- First step of semen processing at room temperature, followed by cooling down to +5°C; the second dilution step is performed at +5°C and equilibration at +5°C
- The two-step protocol is recommended when final processing is intentionally delayed; semen can be processed in step A medium and stored at +5°C, and further processed with step B in a cool environment (+5°C) up to 48 hours later
- Requires addition of fresh egg yolk
- Contains an antibiotic

CaniPlus Freeze AI, 20 ml

Fraction B contains glycerol

13700/0070

- Culture medium for thawing canine semen and for artificial insemination (AI)
- Ideal for all AI, especially when using poor quality or low volume semen
- Is added to fresh and chilled semen just before insemination or added to frozen semen to increase the volume of the insemination dose, when TCI cannot be performed
- Can also be used to rinse insemination catheters and flush all the sperm cells into the vagina (vaginal AI)
- Ready-to-use
- · Contains motility-enhancing ingredients and an antibiotic
- Animal protein free









Frozen semen...

is only transferable 5-6 days after the LH peak (3-4 days after ovulation), due to the shorter lifespan of the thawed spermatozoa. Intrauterine sperm deposition is crucial for success.



Reliable and certified quality

- The general **quality certificate** and the batch certificate are available upon request
- The consistently superior quality of Minitube extenders is due to our strict quality control of all raw materials, as well as the batch control of the end product
- All raw materials used in Minitube media are produced according to DIN ISO 9001:2015 norms, and are certified for meeting Ph Eur, BP or USP standards
- They are tested and comply with the current international guidelines regulating the quality of pharmaceutical substances
- Production of all Minitube canine media in the USA is performed in a clean room and documented with weighing records

- Under expert veterinary supervision, each batch of the final product is subjected to a series of chemical and physical tests and used under practical conditions to conserve semen
- Minitube's media can consistently provide semen conservation with high spermatological efficacy under a wide range of climatic and processing conditions





Minitube equipment for semen analysis: SDM 1 and AndroScope

- The appropriate dilution ratio for semen preservation or semen analysis depends on the sperm concentration. Raw semen with a higher sperm concentration requires a greater amount of semen extender. Minitube offers the **SDM 1 photometer** for quick, accurate, and easy semen concentration analysis.
- AndroScope is a compact mobile CASA system and can analyze semen samples anywhere. Sperm motility and concentration can be determined within seconds. The number of motile sperm plays a significant role in Al success. Al should be performed with semen containing at least 200 million motile sperm.

