ADA

Accurate Dosage of Antibiotics

Minitube's newly developed ADA protocol ensures consistent and accurate dosage of antibiotics in extended boar semen and avoids the handling of antibiotics in powder form.

(+ Protects the semen dose
(+ Protects your lab
(+ Protects your employees
(+ Protects the environment

ADA concept by Minitube

- The ejaculate is diluted in a two-step process. Antibiotic-free extender is used for the main dilution step. An antibiotic concentrate is added separately.
- The calculated end-volume of the finally diluted ejaculate defines the required volume of the antibiotic concentrate as well as the volume of the antibiotic free main extender.
- The same amount of antibiotics is added per sperm cell, independent of the dilution ratio.

Accurate dosage of antibiotics in every ejaculate

Minitube's ADA concept is based on original work by Martin Schulze et al. (2017):

Schulze M, Grobbel M, Riesenbeck A, et al. Dose rates of antimicrobial substances in boar semen preservation—time to establish new protocols. Reprod Dom Anim. 2017; 00:1–6. doi:10.1111/rda.12921.

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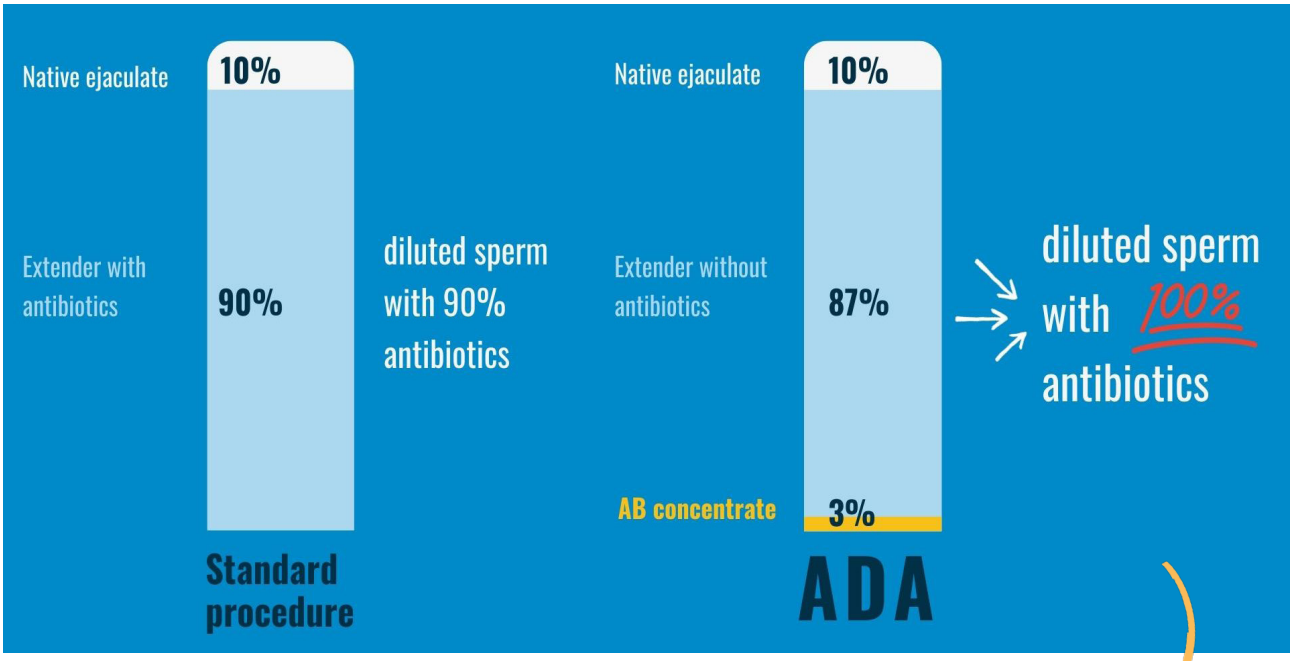
How ADA works



Standard procedure

1. Extender with antibiotics is added to the ejaculate or pool, resulting in extended semen with less antibiotics as in the extender
2. Low dilution ratios of ejaculates with low sperm concentration result in subdosification of antibiotics
3. Lack of standardization can impair semen quality

ADA concept procedure

1. Automated calculation of the end volume of diluted ejaculate based on sperm analysis with Prism10
2. Add AB concentrate
3. Add AB-free main extender

(+ Benefits of the ADA concept

+ Accurate dosage of antibiotics in every ejaculate secures semen quality in each dose
+ The fully automated protocol is easy to integrate into existing operating processes
+ Main extender contains no antibiotics, therefore less antibiotics are discarded, reducing the negative impact on the environment
+ Dust free handling of antibiotics:
  - Protects lab personnel
  - Minimizes the risk of building up antibiotic resistances

Watch our product video for more information on how ADA can optimize your lab process!

ADA-pouch for safe handling

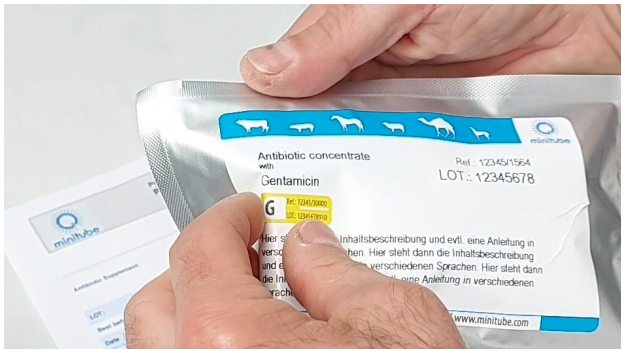
ADA-pouch

- Innovative **water-soluble** foil enables non-contact and dust-free preparation of the liquid antibiotic concentrate
- Different antibiotic concentrates are **color-coded** for easy identification
- Each pouch prepares a 3 l concentrate for 100 l of final extender

ADA-pouch with Gentamicin, 25 g	13540/6025
ADA-pouch with with Gentamicin, Lincomycin, Spectinomycin, 82 g	13540/6027
ADA-pouch with Ampicillin and Apramycin, 50 g	13540/6026

Color coding for easy identification of antibiotics

ADA-pouch + water = AB-concentrate




Removable labels for safe batch tracking


Let ADA pouch drop into the water


ADA-pouch dissolves completely

Lab automation facilitates the ADA process

To facilitate the ADA process in the boar semen laboratory, the complete calculation and dilution process is performed fully automated by Prism10 laboratory software and the SmartDispenser 3.0.

Prism10 lab software

With its dynamic user interface, Prism10 lab software offers a modern process and product-based concept for controlling boar semen production.

Prism10 lab software, subscription [1]	12535/0010

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Fully automated with just one click!

SmartDispenser 3.0 for ADA

Consists of a controller, 2 pump units and a scale. Compatible with Prism10 or can be used as a stand-alone system.

SmartDispenser 3.0 for ADA [2]	13200/04xx

Accessories

Heated extender vat 3 l [3] for antibiotic concentrate	13201/0503
Heated extender vat 100 l [4] various versions	13201/0100
Heated extender vat 200 l various versions	13201/0200