GM501 SpermActive

GYNEMED

- **Ready to use**
- **HEPES (15mM) and bicarbonate buffered**
- **Suitable for washing, swim-up and density gradient centrifugation**
- **For handling of testicular tissue**
- **Contains Gentamicin (10 mg/liter) and Phenol Red**
- **Includes highest available purity (Ph. Eu./USP) Human Serum Albumin (5.00 g/liter)**
- **Can be used safely for up to 7 days after opening when stored at 2 - 8°C and sterile conditions are maintained**
- **A Certificate of Analysis for each batch is available at hamiltonthorne.com**

GM501 SpermActive Intended Use

GM501 SpermActive is intended for the handling and preparation of sperm for use in assisted reproduction procedures. GM501 SpermActive is not intended for use in intrauterine insemination (IUI) procedures.

GM501 SpermActive is a ready-to-use medium designed for sperm washing, swim-up techniques and density gradient centrifugation, as well as for testicular tissue.

GM501 SpermActive Instructions for Use

- Prior to use, GM501 SpermActive must be equilibrated overnight in a humidified CO_2-incubator (at 5 - 7% CO_2, 37°C).
- Any laboratory procedures described herein are recommendations only. Each laboratory must establish and validate its own procedures for preparation and use.

GM501 SpermActive Composition

- NaCl, KCl, KH_2PO_4, MgSO, $CaCl_2$
- Bicarbonate, HEPES, EDTA
- Glucose, Lactate, Pyruvate
- Non-essential and essential Amino Acids, Alanyl-Glutamine
- Human Serum Albumin, Gentamicin, Phenol Red

GM501 SpermActive Specifications

pH (at 37°C, 6% CO_2)	7.20 - 7.50
Osmolality (mOsm/kg)	270 - 290
Sterility (sterile/SAL 10^{-3})	No Growth
Endotoxins (LAL, EU/ml)	< 0.25
Human Sperm Survival Assay (HSSA)	≥80% of Control Motility at 24h

Part #	Size	Storage	Shelf life*
4 GM 501SA-020	1 x 20 ml	2 - 8°C	6 months
4 GM 501SA-050	1 x 50 ml	2 - 8°C	6 months

*From the date of manufacture

HAMILTON THORNE

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GM501 SpermActive

Direct Swim-Up

Media

The below protocol reflects the use of GM501 SpermActive for Direct Swim-up.

Swim-Up

1) Transfer 2 ml of equilibrated GM501 SpermActive into a new conical centrifuge tube (Fig. 1).
2) Underlay with 1 ml of liquified semen (Fig. 2).
3) Place cap on tube but do not tighten and place in CO_2-incubator for 1 hour (Fig. 3).

Washing

1) Without dispersing the lower layer, aspirate the upper media layer containing the motile sperm and transfer to a new conical centrifuge tube (Fig. 4).
2) Centrifuge at 300-400x g for 6 minutes (Fig. 5).
3) Without dispersing the pellet, aspirate and discard the supernatant (Fig. 6).
4) Resuspend the pellet in 1 ml of equilibrated SpermActive medium (Fig. 7).
5) Centrifuge at 300-400x g for 6 minutes (Fig. 8).
6) Without dispersing the pellet, aspirate and discard the supernatant (Fig. 9).
7) Repeat Steps 4 through 6 (Fig. 7 - 9).
8) **For IVF**: Resuspend the pellet in 0.1 - 1.0 ml of equilibrated culture medium.
   For ICSI or Insemination: Resuspend the pellet in equilibrated GM501 SpermActive.

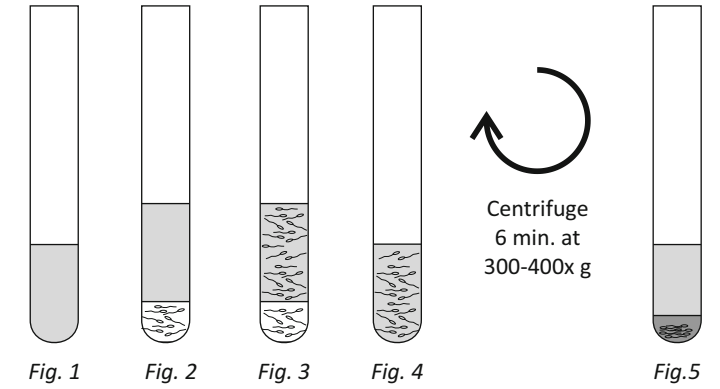

Fig. 1 *Fig. 2* *Fig. 3* *Fig. 4* *Fig.5*

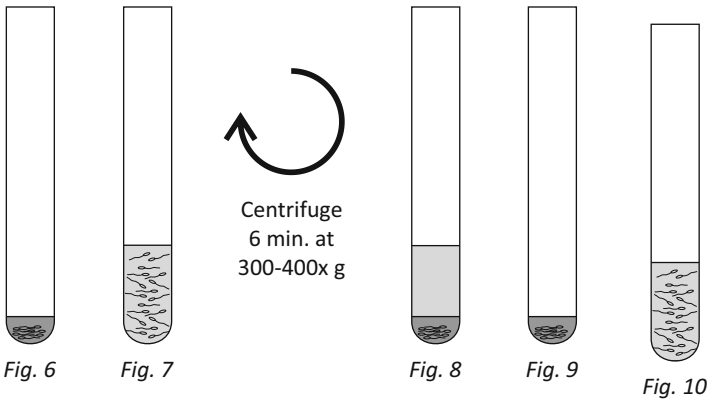

Fig. 6 *Fig. 7* *Fig. 8* *Fig. 9* *Fig. 10*

Indirect Swim-Up

Media

The below protocol reflects the use of GM501 SpermActive for Indirect Swim-up.

Washing 1

1) Transfer 5 ml of sperm washing medium into a conical centrifuge tube.
2) Add 1.0 to 3.0 ml of liquified semen and mix well (FIg. 1).
3) Centrifuge at 300-400x g for 10 minutes (Fig. 2).
4) Aspirate the supernatant and discard (Fig. 3).

Swim-Up

1) Overlay the pellet with 2ml of equilibrated GM501 SpermActive medium (Fig. 4).
2) Place cap on tube but do not tighten and place in CO_2-incubator for 1 hour (Fig. 5).
3) Aspirate the supernatant containing the motile sperm and transfer to a conical centrifuge tube (Fig. 6).

Washing 2

1) Add 1 ml of equilibrated GM501 SpermActive to the aspirated supernatant (Fig. 7).
2) Centrifuge at 300-400x g for 6 minutes (Fig. 8).
3) Without dispersing the pellet, aspirate and discard the supernatant (Fig. 9).
4) Repeat Steps 1 through 3 (Fig. 7 - 9).
5) **For IVF**: Resuspend the pellet in 0.1 - 1.0 ml of equilibrated culture medium.
   For ICSI or Insemination: Resuspend the pellet in equilibrated GM501 SpermActive.

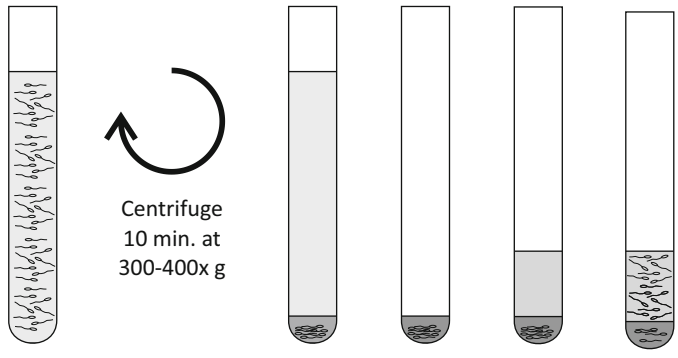

Fig. 1 *Fig. 2* *Fig. 3* *Fig. 4* *Fig.5*

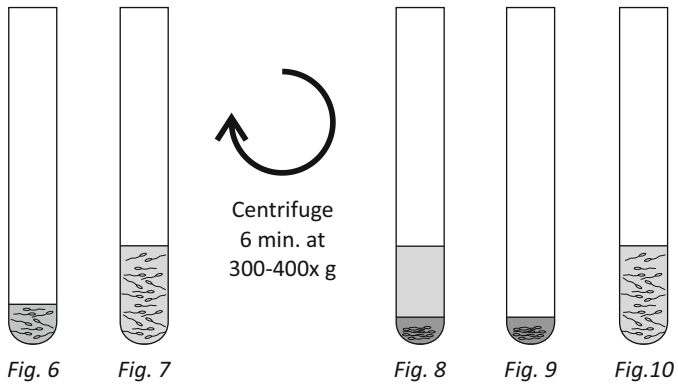

Fig. 6 *Fig. 7* *Fig. 8* *Fig. 9* *Fig.10*

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