

Gytech Expands Andrology Range

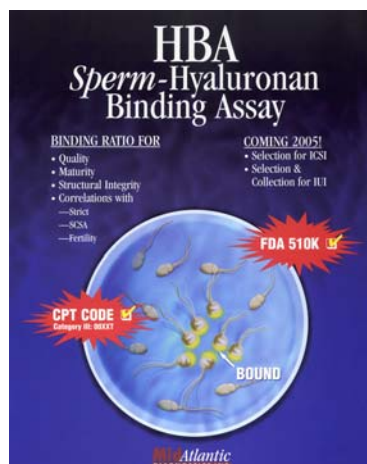
Qualitative Sperm Assessment: Relationship between the Hyaluronan Binding Assay (HBA™) and Sperm Morphology, Chromatin Integrity and IVF Rates - *William E Roudebush, Tyl H Taylor, Daniel B Shapiro, Dorothy Mitchell-Leef, Carlene W Elsner, Joe B Massey and Hilton I Kort; Reproductive Biology Associates, Atlanta, Georgia*

Hyaluronan may play a role during fertilisation by selection of functionally competent sperm. Mature, motile sperm bind with hyaluronan through specific receptors. A commercially available hyaluronan binding assay (HBA™, Biocoat, Inc., Ft. Washington, PA) is currently available.

Semen smears were fixed (1.8mg triarylmethane), stained in xanthene and thiazine (1.25g/L each); rinsed in dH₂O and air dried. Smears were examined under oil immersion with bright light at 400X. Each specimen has 200 cells systematically evaluated (strict criteria). Sperm chromatin integrity was determined by the DNA fragmentation assay (SDFA; Repromedix, Woburn, MA). Sperm chromatin integrity (the percentage of cells with fragmented DNA) is reported as DNA fragmentation index (DFI). HBA (provided in kind, Mid Atlantic Diagnostics) was performed following the manufacturers' instructions: an aliquot of semen is deposited on the HBA slide and incubated 10-20 mins and the number of motile bound and unbound sperm are recorded. Conventional insemination was performed by adding 100,000 sperm/mL to oocytes, which were in groups of 3-5 in 75µ droplets of fertilization medium under sterile mineral oil. Embryos with two pronuclei were transferred to a new 50-µ drop of embryo culture medium for culture. All embryo transfers were performed with a Wallace catheter. Data were subjected to regression analysis and Student's t-test.

Regression analysis revealed a significant relationship between the HBA and sperm morphology, sperm DFI and IVF rates. There was significant difference in HBA scores between normal IVF rates and abnormal IVF rates. A receiver-operator characteristic (ROC) curve was calculated to determine what HBA value best predicted a passing IVF outcome. The sensitivity and specificity for HBA levels were calculated for different cutoff limits to predict IVF outcomes. The ROC curve and the calculation of the probability that a positive IVF outcome will be predicated indicated a cutoff of 85% for the HBA.

Hyaluronan may play a significant role during fertilization by selection of functionally competent sperm. In the present study we found a significant relationship between the HBA and DFI as well as cell morphology. Of critical importance, we found a significant relationship between the HBA and IVF rates. The HBA may be used as a diagnostic indicator for assisted reproduction, helping the clinician and patient decide upon the proper course of treatment.



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Now Available
Gytech Sales Staff

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New Products in Andrology Range



CASSETTES FOR STORAGE OF STRAWS



- Rectangular or triangular cassettes made of plastic
- Comprising two parts – the transparent tubular body and the coloured lift
- Available in 6 different colours for better identification of stored samples
- Made from PVC, the colour lift is polypropylene (PP)

Cassettes can be used for storage of individual or small numbers of straws for cryopreservation of biological material in liquid nitrogen tanks. They are used as an alternative to goblets. Neither the main body nor the lift comes into contact with the patient, gamete or embryo

BIOPSY – PACKAGING SET

Packaging set for biopsy samples. Coded to avoid mistaken identities

Contents: 3 ampoule holders with protective sheaths for each 5 cryo vials 2ml with screw cap, sterile



HS-SET (HUMAN SEMEN SET)

The system for cryopreservation of biological material is used for packaging of human semen in single portions. Our HS-Set contains all the necessary components for processing one ejaculate and storing. All components in this sterile set are coded



STRAWS FOR CRYOPRESERVATION

Gamma irradiated straws of various size

Ministraws with identification stick 0.25 cc, 133mm & 90mm

Ministraws with glass sealing balls 0.25 cc, 133mm & 90mm

Medium straws with metal sealing balls 0.5 cc, 133mm



Coming Soon

CUMULASE FOR IVF

rHuPH20 - The only recombinant human hyaluronidase

Safer, Purer.
 Typical slaughterhouse hyaluronidase enzymes are crude extracts as compared to Cumulase™.

	Cumulase	Research Grade Bovine Hyaluronidases	Other Commercial Options
Animal Product Free	Yes	No	No
Animal DNA Free	Yes	No	No
BSE/TSE Risk Free	Yes	No	No
Mycoplasma Tested	Yes	No	No
Viral Clearance Tested	Yes	No	No
Active Ingredient GMP	Yes	No	?
Immunoglobulin Free	Yes	No	No
Biocompatibility Tested	Yes	No	Yes
MEA tested	Yes	No	Yes

Cumulase can replace animal-derived hyaluronidase used to prepare oocytes for certain In-Vitro fertilisation procedures and cryopreservation. The purity of Cumulase is more than 100-fold higher than the currently used animal preparations. It may reduce, if not eliminate, the risk of damage or trauma to the oocytes, and eliminates the risk of animal pathogen contamination, thereby providing a safer, purer, and more reliable alternative to bovine and ovine slaughterhouse derived enzymes.

MidAtlantic
 DIAGNOSTICS, INC.

Now Available



Oocyte Freezing Medium

Choline Substituted Cryopreservation

SART-8017 - 1 x kit is sufficient for one (1) freezing procedure

Oocyte Thawing Medium

Choline Substituted Cryopreservation

SART-8018 - 1 x kit is sufficient for four (4) thawing procedures

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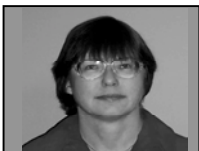
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