HBA® Slide
Sperm-Hyaluronan Binding Assay

• For qualitative sperm assessment in minutes
• Quick and reliable diagnostic tool
• Binding ratio for maturity, strict morphology and DNA integrity
• Identifies patients proven to benefit from HA-sperm selection in the PICSİ® dish
HBA® Slide

Sperm diagnostics based on Hyaluronic acid binding

The Hyaluronic Binding Assay (HBA®) is an important diagnostic tool for suspected male infertility in the analysis of semen. In a matter of minutes the HBA® slide provides an answer to the proportion of mature binding spermatozoa in the sample (The HBA® score %).

Calculated % Bound = 100 x Bound Motile/Total Motile

Facts on Hyaluronan (Hyaluronic acid - HA):

- Hyaluronan is the major component of the Cumulus Complex surrounding the human oocyte
- A sperm's ability to bind to HA is a biochemical marker of the sperm's maturity and DNA integrity
- Only mature spermatozoa with developed receptors for HA can bind

Viewed in the microscope, bound sperm are differentiated from unbound sperm by their beating tails with heads that make no progressive movement.

Unbound, Motile Sperm

Bound, Motile Sperm

Free Swimming Motion

Vigorous Tail Motion with No Forward Motion of Head

Clinical documentation

The ability to bind to HA correlates to:

- Maturity
- Strict morphology
- High DNA integrity
- Reduced chromosomal aneuploidies

The HBA® slide is found to be useful in predicting the ability of spermatozoa to fertilize oocytes in IVF and is helpful in distinguishing semen samples suitable for IVF or ICSI (Breznik et al., 2013)

Helps to significantly reduce Pregnancy Loss Rate

Worrilow et al. (2012) found that a combination of the diagnostic abilities of the HBA® slide and the HA-sperm selection abilities of the PICSI® dish improved Clinical Pregnancy Rate and significantly reduced Pregnancy Loss Rate in ICSI patients diagnosed with low HBA® scores (≤65% binding ratio).

This study also demonstrated that 15% of all ICSI patients have a low HBA score (≤65%) and would benefit from HA sperm diagnostics and selection.

References


Yagci et al. (2010) Spermatozoa bound to solid state hyaluronic acid show chromatin structure with high DNA chain integrity: An acridine orange fluorescence study. J Androl; 31:566-572


Catalogue No.

BCT-HBA-10 HBA® slide: Package of 10 assays

Find more information on www.origio.com

A demonstration video as well as the instructions for use are available on our website. You can also find out who your local ORIGIO distributor is.