

# PICSI® Dish

# Sperm selection for ICSI using Hyaluronan binding

- Significantly reduces pregnancy loss rate
- Binds only mature sperm with high DNA integrity
- Correlates with the identification of mature sperm that are morphologically sound and have high DNA integrity
- Clinically proven to benefit ICSI patients with a low Hyaluronan Binding Assay (HBA®) score





## PICSI dish significantly reduces Pregnancy Loss Rates (PLR)

Early pregnancy loss can result from selecting a compromised spermatozoa during ICSI. This can be due to the fact that visual selection alone cannot identify mature spermatozoa with high DNA integrity and reduced chromosomal aneuploidies.

The PICSI dish uses Hyaluronic Acid (HA) to select sperm for ICSI, where mature spermatozoa will bind for easy picking.<sup>2</sup>

## **HA Facts:**

- 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<sup>3</sup>

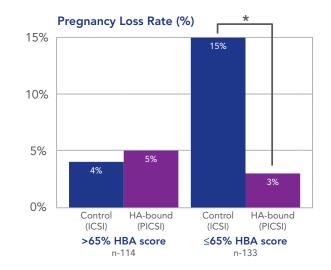
# Unbound motile sperm Free swimming motion Bound motile sperm Vigorous tail motion with no forward motion of head

### Clinical documentation

An extensive study found using the diagnostic abilities of HBA together with the selection process in the PICSI dish led to improved Clinical Pregnancy Rate (CPL), and significantly reduced Pregnancy Loss Rate (PLR) in ICSI patients diagnosed to have low HA-binding ability (HBA score  $\leq\!65\%$ ). It also demonstrated that 15% of all ICSI patients express sperm samples with compromised developments (HBA score  $\leq\!65\%$ ) and would benefit from HA sperm selection.  $^1$ 

- Multi-center trial (10 centers)
- Randomized, double-blinded, controlled
- 804 patients

Statistical significance (\*) is indicated at P<0.05



## Catalogue No.

BCT-PICSI-20 20 PICSI dishes, individually packaged, sterile

## Learn more at www.origio.com/andrology

## References

- 1. Worrilow, K.C., Eid, S., Woodhouse, D., Perloe, M., Smith, S., Witmyer, J., Ivani, K., Khoury, C., Ball, G.D., Elliot, T., Lieberman, J. 2013. Use of hyaluronan in the selection of sperm for intracytoplasmic sperm injection (ICSI): Significant improvement in clinical outcomes—multicenter, double-blinded and randomized controlled trial. Human Reproduction 28, 306–314. doi:10.1093/humrep/des417
- 2. Huszar G. 2012. Sperm Testing and ICSI Selection by Hyaluronic Acid Binding: The Hyaluronic Acid-Coated Glass Slide and Petri Dish in the Andrology and IVF Laboratories. In: Nagy Z., Varghese A., Agarwal A. (eds) Practical Manual of In Vitro Fertilization. Springer, New York, NY. doi.org/10.1007/978-1-4419-1780-5\_27
- 3. Yagci, A., Murk, W., Stronk, J., Huszar, G., 2010. Spermatozoa Bound to Solid State Hyaluronic Acid Show Chromatin Structure With High DNA Chain Integrity: An Acridine Orange Fluorescence Study. Journal of Andrology 31, 566–572. doi:10.2164/jandrol.109.008912

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