

A protective trio inspired by nature

Introducing Gx Media – triple antioxidant protection for improved embryo viability.

Reactive oxygen species are ubiquitous throughout any given IVF cycle. And they pose a significant threat to your embryo culture. To keep your embryos out of harm's way, we have developed Gx Media – a unique triple antioxidant protection for improved embryo viability. The three antioxidants have been added to our gamete-handling media (Gx-MOPS PLUS™), IVF media (Gx-IVF™), and culture media (Gx-TL™) to form a protective barrier against oxidative stress. Making sure your embryos are safe and sound throughout the entire IVF cycle.

Improving embryo viability



Acetyl-L-Carnitine, Alpha-Lipoic Acid and N-Acetyl-L-Cysteine have a highly beneficial effect on embryo development when used in combination.^{1,2}



Improved embryo viability and trend towards increased pregnancy rate.^{3,4,5}



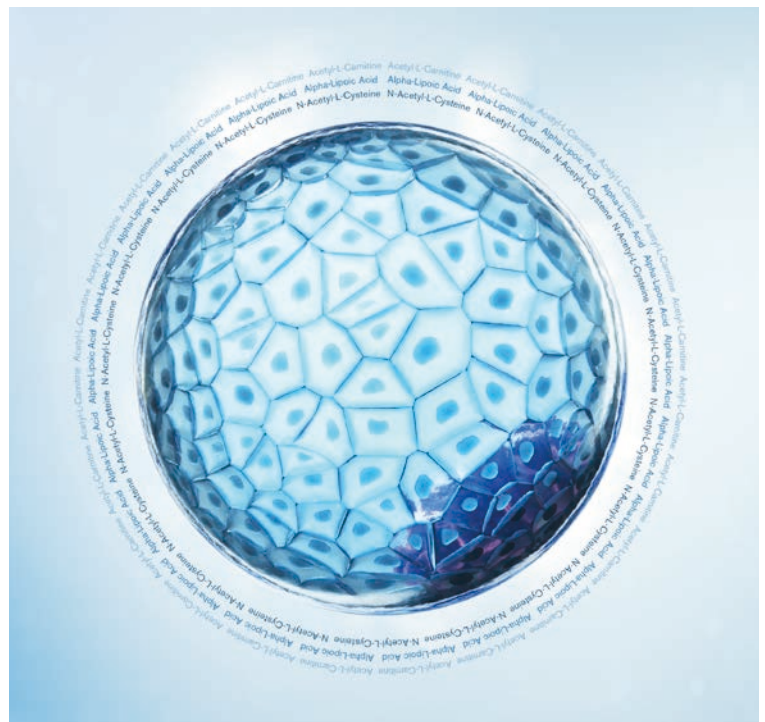
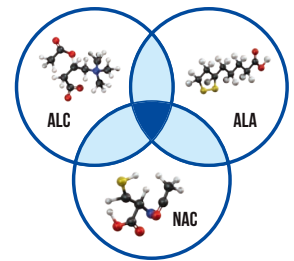
Benefits are greatest at 20% oxygen but are also present at 5% oxygen.^{1,2}



The three antioxidants should be present in gamete-handling media, IVF media and culture media.^{1,2,3,4,5}

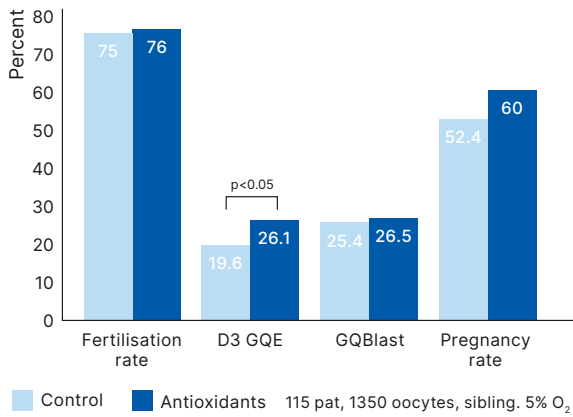
Triple antioxidants working together

- **Acetyl-L-Carnitine** improves oocyte chromosomal structure and blastocyst development while reducing apoptosis.⁷
- **Alpha-Lipoic Acid** significantly improves embryo development to the blastocyst and increases cell numbers at 20% oxygen.⁶
- **N-Acetyl-L-Cysteine** increases glutathione (GSH) levels, cleavage and blastocyst rates.⁸



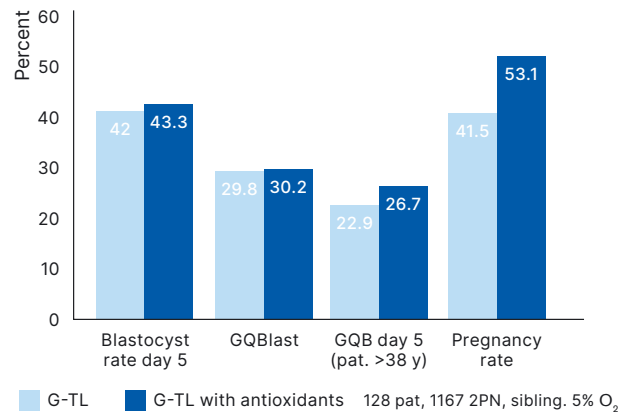
Clinical Studies

Fig 1. Increased Day 3 embryo quality, trend towards increased pregnancy rate³



The safety and efficiency of the combination of antioxidants have been investigated in a multicentre trial. The study by Yoshida et al., used antioxidants in the oocyte handling, IVF, and culture media. The investigators found a significant increase in day 3 embryo quality and numerically higher pregnancy rates for the antioxidants group.

Fig 2. Antioxidants in G-TL are safe, trend towards increased pregnancy rate⁵



In the study by Hardarson et al., participating centres investigated the effect of antioxidants in a single-step culture system, G-TL with or without the antioxidants. The investigators found no significant differences in any embryo development endpoint and, as with the study in Japan, they observed numerically higher pregnancy rates for the antioxidants group. Clinical trials designed to investigate the effects of the antioxidant combination on clinical outcome parameters are ongoing.



Gx-MOPS PLUS

- Triple antioxidant protection
- Amino acids for support
- pH control for handling of oocytes/embryos in ambient atmospheric conditions



Gx-IVF

- Triple antioxidant protection
- For preparation and handling of gametes, for IUI and for in vitro fertilization
- High albumin level



Gx-TL

- Triple antioxidant protection
- Ideal for single-step blastocyst culture⁵
- Clinically proven^{5,9}



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REFERENCES 1. Truong et al. Hum Rep Vol. 31. No.7 pp.1445-1454, 2016 2. Truong et al. Hum Rep Vol. 32. No.12 pp. 2404-2413, 2017 3. Yoshida, T. Kuramoto, M Tanaka, S Mizumoto, M Montag, D.K. Gardner P136 ESHRE 2018 4. Mizumoto et al., P221 ESHRE 2021 5. Hardarson et al. O-115 ASRM 2018. 6. Linck, Larman and Gardner (2007) Fertil Steril 88: S36-S37. 7. Abdelrazik, H., A (2007) Fertil Steril 88, Supplement 1(0): S317. 8. Furnus, C. C. et al. (2008) Anim Reprod Sci 109(1-4): 88-99. 9. Ueno et al., Reproductive Sciences, 2021. 10. Yoshida et al. P-136 ESHRE 2018.

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