

Journal of Andrology, Vol 19, Issue 5 568-572, Copyright © 1998 by The American Society of Andrology

JOURNAL ARTICLE

Mullerian inhibiting substance improves longevity of motility and viability of fresh and cryopreserved sperm

Y. Siow, M. E. Fallat, F. A. Amin and A. M. Belker
Department of Surgery, University of Louisville, Kentucky, USA.

Mullerian inhibiting substance (MIS) is a hormone present in seminal plasma, but its role is unknown. In this study, the effects of MIS on sperm survival in fresh and cryopreserved specimens were investigated. Fresh sperm motility and viability (n = 12) were evaluated in specimens after 0, 0.5, 1, 3, 5, and 22 hours of incubation in the presence or absence of MIS. Motile and nonmotile sperm were evaluated in Cell-Vu counting microscope slides, and viability was assessed by eosin-nigrosin exclusion. Sperm cryopreserved for 2 weeks in TES (N-Tris[hydroxymethyl]methyl-2-aminoethanesulfonic acid)-Tris-glycerol-egg yolk buffer and 4% glycerol with or without MIS were thawed at room temperature (n = 6) and were evaluated for motility and viability using identical methods to those used with fresh sperm. The effects of MIS were examined by coincubation with monoclonal anti-MIS antibody (6E11; n = 6). In fresh and cryopreserved sperm incubated with MIS, both motility and viability were higher than in the absence of MIS (P < 0.03; Wilcoxon signed rank test) at 5 and 22 hours. Coincubation with anti-MIS antibody eliminated the effects of MIS. Longevity of sperm motility and viability are improved both in fresh and cryopreserved sperm in the presence of MIS and may have potential for use in assisted reproductive technology.

This article has been cited by other articles:



Journal of **ANDROLOGY**

[HOME](#)

D. Madhukar and S. Rajender
Hormonal Treatment of Male Infertility: Promises and Pitfalls
J Androl, March 1, 2009; 30(2): 95 - 112.

[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)



ENDOCRINE REVIEWS

[HOME](#)

J. Teixeira, S. Maheswaran, and P. K. Donahoe
Mullerian Inhibiting Substance: An Instructive Developmental Hormone with Diagnostic and Possible Therapeutic Applications
Endocr. Rev., October 1, 2001; 22(5): 657 - 674.

[\[Abstract\]](#) [\[Full Text\]](#) [\[PDF\]](#)

This Article

- ▶ [Full Text \(PDF\)](#)
- ▶ [Alert me when this article is cited](#)
- ▶ [Alert me if a correction is posted](#)

Services

- ▶ [Similar articles in this journal](#)
- ▶ [Similar articles in PubMed](#)
- ▶ [Alert me to new issues of the journal](#)
- ▶ [Download to citation manager](#)

Citing Articles

- ▶ [Citing Articles via HighWire](#)
- ▶ [Citing Articles via Google Scholar](#)

Google Scholar

- ▶ [Articles by Siow, Y.](#)
- ▶ [Articles by Belker, A. M.](#)
- ▶ [Search for Related Content](#)

PubMed

- ▶ [PubMed Citation](#)
- ▶ [Articles by Siow, Y.](#)
- ▶ [Articles by Belker, A. M.](#)

[HOME](#) [HELP](#) [FEEDBACK](#) [SUBSCRIPTIONS](#) [ARCHIVE](#) [SEARCH](#) [TABLE OF CONTENTS](#)

[Copyright © 1998 by The American Society of Andrology.](#)