

## **Oviductal catalase binding to the membranes of spermatozoa and uses thereof**

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The present invention relates to a novel oviductal catalase having a molecular weight of about 60 KDa and which binds to a spermatozoa membrane outer surface, wherein said catalase once bound to the spermatozoa membrane outer surface protects said spermatozoa against oxidation. A method of stabilizing spermatozoa membrane and improving spermatozoa survival during migration in oviduct and/or uterus for artificial insemination; which comprises coating spermatozoa with such a catalase enzyme. The use of a catalase enzyme for improving spermatozoa survival during migration in oviduct and/or uterus in cases of female infertility due to the absence of endogenous catalase in the genital tract of the female subject; which comprises administering catalase in the female genital tract before coït or coating spermatozoa with the catalase enzyme for artificial insemination. Also provided herein are methods of diagnostic of male or female infertility.

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