halosperm®

halotech®

Versatile, easy and cost effective

The halosperm® SCD technique allows the measurement of Sperm DNA Fragmentation in an easy and quick manner, with no need of complex laboratory equipment.

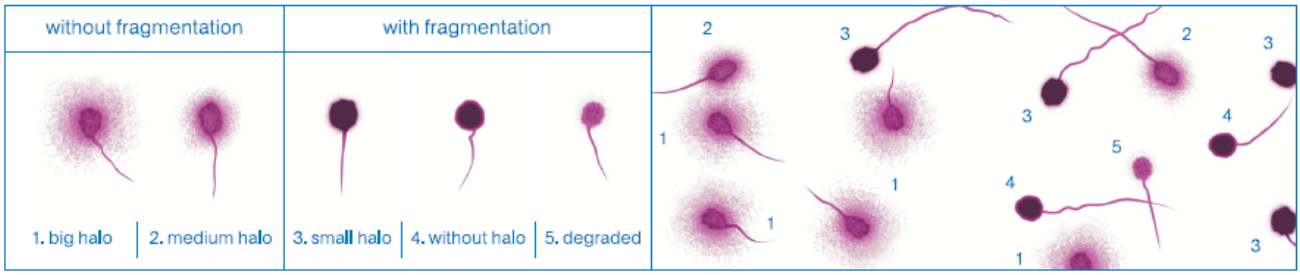
Sperm DNA integrity balanced with other semen parameters provides clinicians with important information to select the most appropriate therapy for the couple.

The halosperm® kits family facilitates an accurate view of sperm DNA quality and sperm DNA longevity independent and complementary to the information obtained from a conventional seminogram.
The evaluation of the Sperm DNA Fragmentation is highly recommended before incurring expensive and frustrating assisted reproductive techniques for the couple.

The DNA of the cells can be damaged through various mechanisms. The integrity of the paternal genome is therefore of paramount importance in the initiation and maintenance of a viable pregnancy both in a natural conception and in assisted reproduction.

The patented Sperm Chromatin Dispersion technique (SCD test) is based on the principle that sperm with fragmented DNA fails to produce the characteristic halo of dispersed DNA loops that is observed in sperm with non-fragmented DNA. The methodology is based on a controlled DNA denaturation and protein removal.

With the SCD protocol from the range of halosperm® kits, highly contrasted halo images can be accurately assessed using conventional bright-field and fluorescence microscopy. Sperm tails are preserved and this helps to unequivocal discrimination of sperm from other cell types; identification of highly degraded sperm cells beside those presenting big, medium or no halo is also possible.



Easy Steps

An initial acid treatment denatures DNA molecules in those sperm cells with fragmented DNA. Following this, the lysis solution removes most of the nuclear proteins. In absence of massive DNA breakage, nucleoids of spreading DNA loops emerging from a central core, and producing a halo, are observed.

Easy Identification

The nucleoids from spermatozoa with fragmented DNA either do not show a dispersion halo or the halo is minimal.

1. Spermatozoa dilution in agarose and microgel formation on the slide:
15 minutes

2. Sample treatment with acid denaturation and lysing solution:
30 minutes

3. Washing & Dehydration
(*staining steps not included) :
10 minutes

The method is based on the Sperm Chromatin Dispersion (SCD) test (Fernández et al., J. Androl 24: 59-66, 2003; Fertil Steril 84: 833-842, 2005).

For more related documentation, please contact:
info@halotechdna.com or visit our website:
www.halotechdna.com/category/library/

***halosperm*®** *belongs to the* ***halosperm Kits Family*®** *and* ***halotech Solutions*®**

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