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Proximity Ligation Real-Time PCR: a protein-based confirmatory method for the identification of semen and sperm cells from sexual assault evidence

Alternative Title: Semen and Sperm Detection by Antibody-Based Proximity Ligation Real-Time PCR Assay

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Highlights

- Proximity Ligation Real-Time PCR (PLiRT-PCR) is a sensitive immunoassay that combines antibody-oligo conjugates, enzymatic ligation, and polymerase chain reaction for quantitative protein detection.
- We show that PLiRT-PCR assay enables detection of semen as well as sperm cells from simulated sexual assault samples.
- The assay processes multiple samples at a time and utilizes existing instruments in forensic labs.

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