

ANALYSIS CRITERIA TO DILUCIATE PATERNITY CASES WITH ALLEGED FATHERS WITH FIRST DEGREE CONSANGUINITY

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A case of father/son presumed paternity is reported. Using the ABI AmpFISTR® Identifiler® platform, a result of non-excluded paternity was obtained, with a paternity index of 463734 and cumulative probability of paternity of 99.999784359%.

Further information for this case was received indicating that the alleged father analyzed was in fact the paternal grandfather of the alleged child who legally recognized him as his son. Additional testing was carried with the PowerPlex® Fusion System platform (Promega Corporation) with a paternity testing index of 8663349 and cumulative probability of paternity of 99.999988457%.

Given the situation, samples of the alleged paternal grandmother and the biological mother of the child were requested. The results indicated that a biological child of the alleged paternal grandparents could be the biological father with a paternity index of 3911474663 and cumulative probability of paternity of 99.999999974%.

When the grandfather was analyzed along with the child and his biological mother using PowerPlex® Fusion System platform, the results showed two exclusions in D13S317 and D12S391 STR, demonstrating that the grandfather was not the biological father. These findings highlight the importance to include the biological mother of individuals in cases where first degree members are accused of paternity as in this case, as well as to use STR platforms with the highest number of markers to elucidate complex cases.