

A Simple Technique for Chromosome Preparation from Embryonic Tissues of teleosts for Ploidy Verification

Type: Article

Abstract:

The modified preparation technique developed in the present study has provided an excellent chromosome metaphase spread from the whole body of larvae of the red hybrid tilapia *Oreochromis mossambicus* (Peters, 1852) X *Oreochromis niloticus* (Linnaeus, 1758). Unlike other chromosome preparation methods, this modified technique showed a reduction in cell loss while suspending cells during the dropping process. This modified technique can therefore be widely applied not only to various tilapias but also to other teleostean fishes for preparing chromosome spreads. The best treatment parameters for preparing good chromosome spreads from red hybrid tilapia were optimized as 0.01% concentration of colchicine for 4-6 hours, hypotonic 40 minutes treatment, fixation with carnoy solution at 3:1 ratio and a concentration of 10% Giemsa for 20 minutes.

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