1.16. Characterisation of Crassostrea gigas after restriction endonucleases treatments

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Genetic research in oysters is hampered by the lack of reliable techniques for chromosome banding. In this study, we have carried out the cytogenetical characterisation of the pacific oyster Crassostrea gigas (2n=20) using restriction endonucleases treatments. Chromosomes were treated with 3 different restriction enzymes, stained with Giemsa, and examined for banding patterns. The treatment of samples with Apal, HaeIII and PstI restriction endonucleases produced specific banding patterns, which demonstrate the potential of endonucleases for chromosome banding in oysters. This is far more important since it has been recently shown in mammals that restriction enzyme banding is compatible with fluorescent in situ hybridisation (FISH). This study provides then a fundamental step in genome mapping of oysters, since the chromosome banding with restriction enzymes will facilitate physical mapping of genes in this important culture species.

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