

Physiological meaning of calcitonin mRNA found in the gonads of a teleost

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2001 Fiscal Year Final Research Report Summary

Physiological meaning of calcitonin mRNA found in the gonads of a teleost

Research Project

Project/Area Number

11640662

Research Category

Grant-in-Aid for Scientific Research (C)

Allocation Type

Single-year Grants

Section

一般

Research Field

生物形態・構造

Research Institution

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1999 - 2001

Keywords

calcitonin / mRNA / teleost eggs

Research Abstract

Researchers in US found the calcitonin (CT) mRNA in the uterus of rats, and supposed that CT may make a suitable environment of Ca for cellular adhesions and differentiation of organs in embryos. We were stimulated by their report, and tried to amplify the CT cDNA in the testes and ovaries of goldfish by RT-PCR method. As a result, the same sequence of the nucleotides as the ultimobranchial calcitonin was amplified from homogenates of those gonads. Furthermore, we found CT-immunoreactive axons of neurons in the testis of goldfish. Therefore, we planned to examine the access points of the axons of the CT-producing neurons, using tilapia, because those axons may be terminated at muscles or steroid-producing cells in the gonads. In addition, we were going to ablate the neural ganglion in the gonads, and to observe the effects. In tilapia, however, the neural ganglion was not immunoreacted against the anti-CT antiserum, and was not compact but dispersed. Therefore, this project was judged ... More

Research Products (17 results)

All Other
All Publications

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