Cloning and identification of 300 bp partial expressed gene fragment isolated from muscle tissue of african catfish, Clarias gariepinus / Noorlyana Mazlan.

Lihat sebelah

CLONING AND IDENTIFICATION OF 300 BP PARTIAL EXPRESSED GENE FRAGMENT ISOLATED FROM MUSCLE TISSUE OF AFRICAN CATFISH, *Clarias gariepinus*

By
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Research Report submitted in partial fulfillment of
the requirements for the degree of
Bachelor of Agrotechnology Science (Aquaculture)

Department of Fishery Science and Aquaculture
FACULTY OF AGROTECHNOLOGY AND FOOD SCIENCE
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BORANG PITA 8

FAKULTI AGROTEKNOLOGI DAN SAINS MAKANAN
UNIVERSITI MALAYSIA TERENGGANU

PENGAKUAN DAN PENGESAHAN LAPORAN PROJEK ILMIAH I DAN II

Adalah ini diakui dan disahkan bahawa laporan ilmiah bertajuk:

Cloning and identification of 300 bp partial expressed gene fragment isolated from muscle tissue of African catfish, *Clarias gariepinus* oleh Noorlyana binti Mazlan, No.Matrik UK12932 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Perikanan dan Akuakultur sebagai memenuhi sebahagian daripada keperluan memperolehi Ijazah Sarjana Muda Sains Agroteknologi (Akuakultur), Fakulti Agroteknologi dan Sains Makanan, Universiti Malaysia Terengganu.

Disahkan oleh:

.....

Penyelia Utama

Nama: Dr. Shahreza bin Md. Sheriff

Cop Rasmi: Tarikh: .....

.....

Penyelia Kedua (jika ada)

Nama:

Cop Rasmi Tarikh: .....

DECLARATION

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

Signature : .....

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Matric No : UK12932

Date : 9 MAY 2009

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ABSTRACT

A study was done to clone and identify the expressed gene from muscle tissue of African catfish, *Clarias gariepinus*. In this study, RNA was extracted from the muscle tissue of African catfish and 300 bp fragment was produced using primer 5 in amplification of DD RT-PCR. The fragment was cloned, sequenced and it was named as P5300. Sequenced analysis using BLAST programmed at the NCBI (http://www.ncbi.nlm.nih.gov/) showed that there was no significant match with the gene deposited in the GenBank indicating that P5300 fragment might be an unknown gene or specific gene for muscle tissue of the African catfish. This study shows that it is possible to identify new genes which have never been reported before. Due to this, further study should be done in order to know the gene of P5300 fragment and its important role in the muscle tissue of African catfish for a better understanding of the gene expression and regulation.

ABSTRAK

Kajian ini dijalankan untuk mengklon dan mengenalpasti gen yang diekspreskan oleh tisu otot ikan keli Afrika. Di dalam kajian ini, RNA diekstrak daripada tisu otot ikan keli Afrika dan fragmen 300 bp telah dihasilkan dengan menggunakan primer 5 di dalam amplifikasi DD RT-PCR. Fragment tersebut diklonkan, dijujuk dan dinamakan sebagai P5300. Analisis penjujukan dengan menggunakan program BLAST yang terdapat di dalam NCBI (http://www.ncbi.nlm.nih.gov/) menunjukkan tiada persamaan yang signifikan dengan gen yang terdapat di dalam GenBank menandakan bahawa fragmen P5300 mungkin adalah gen yang tidak diketahui atau gen spesifik di dalam tisu otot ikan keli Afrika. Kajian ini menunjukkan kemungkinan untuk mengenalpasti gen baru yang belum pernah dilaporkan sebelum ini. Oleh sebab itu, kajian selanjutnya perlu dijalankan untuk mengetahui gen bagi fragmen P5300 dan kepentingannya di dalam tisu otot ikan keli Afrika untuk memahami regulasi dan pengekspresan gene tersebut.