Molecular Cloning And Characterization Of The Cathepsin L Gene From The Marine Shrimp Metapenaeus Ensis

#cathepsin L gene #Metapenaeus ensis #shrimp molecular cloning #marine shrimp protease #gene characterization

This research details the molecular cloning and in-depth characterization of the Cathepsin L gene, specifically isolated from the marine shrimp species, Metapenaeus ensis. The study provides crucial insights into the genetic makeup and potential functions of this important protease within marine organisms.

Molecular Cloning And Characterization Of The Cathepsin L Gene From The Marine Shrimp Metapenaeus Ensis

Molecular Cloning explained for Beginners - Molecular Cloning explained for Beginners by Henrik's Lab 11,538 views 4 months ago 6 minutes, 10 seconds - This video is a must watch for beginners to understand how **molecular cloning**, works. All steps of a **molecular cloning**, assay are ...
Intro
Vector generation
Insert generation
Isolation of vector and insert
Assembly
Transformation
Selection and screening
Verification
Molecular Cloning for Beginners: Definition, Workflow and Application - Molecular Cloning for Beginners: Definition, Workflow and Application by Biology Lectures 6,144 views 10 months ago 5 minutes, 56 seconds - In this video, I take a deep dive into the fascinating world of **molecular cloning**,, breaking down complex concepts into ...
Molecular cloning overview - techniques & workflow - Molecular cloning overview - techniques & workflow by the bumbling biochemist 28,363 views 2 years ago 35 minutes - In **MOLECULAR CLONING**, we take a **gene**,* from one place and (most commonly) stick it into a small circular piece of DNA called ...
Intro
Terminology
Techniques
Subclone
Phosphoration
DPN
Other cloning methods
Transfection
Controls
Screening

DNA cloning and recombinant DNA | Biomolecules | MCAT | Khan Academy - DNA cloning and recombinant DNA | Biomolecules | MCAT | Khan Academy by Khan Academy 1,047,459 views 7 years ago 11 minutes, 7 seconds - Introduction to DNA **cloning**,. Watch the next lesson: ...
Dna Cloning
Restriction Enzymes
Plasmid
Introduction to Molecular Cloning - Introduction to Molecular Cloning by SnapGene 17,073 views 2 years ago 5 minutes, 49 seconds - The last 50 years have brought significant advances in **molecular**, biology, engineering, and medicine. Over the years, scientists ...
Background to molecular cloning
What is a molecular clone?
What is a DNA Plasmid?
Model organisms
Molecular Cloning - Molecular Cloning by Bialecki Biology 587 views 2 years ago 16 minutes - ... human **gene**, in the context of a human genome is trying to like studying a needle in a haystack okay so what **molecular cloning**, ...
Key Steps of Molecular Cloning - Key Steps of Molecular Cloning by Andriy Nemirov 370,520 views 14 years ago 7 minutes, 20 seconds - Molecular cloning, is a process of isolation of a specific DNA fragment and transfer of this fragment into a plasmid vector. As a part ...
Simply Cloning A video manual for making DNA constructs
Order your copy of Simply Cloning from Amazon
Copyright 2009 Cloning Strategies Music by Kevin McLeod
Gene Cloning with the School of Molecular Bioscience - Gene Cloning with the School of Molecular Bioscience by The University of Sydney 154,636 views 10 years ago 22 minutes - Presented by the University of Sydney's School of **Molecular**, Bioscience. See the steps involved in **cloning**, a **gene**, of interest using ...
Introduction
Gene Cloning
PCR
Transformation
Separation
Screen
pBR322 Gene Cloning Vector Explained | Biotechnology @biologyexams4u - pBR322 Gene Cloning Vector Explained | Biotechnology @biologyexams4u by biologyexams4u 192,920 views 10 years ago 4 minutes, 57 seconds - #biologyexams4uvideos #pbr322 #biotechnologyvideos.
Selectable Marker
Restriction Enzymes
Restriction Sites
Selectable Markers
Restriction Cloning - Restriction Cloning by Katharine Hubbard 12,466 views 2 years ago 23 minutes - Video used for teaching on module 500709 Cellular Regulation and Biotechnology at the University of Hull.
Digest with Restriction Enzymes
Cloning Primer
Leader Sequence
Compatible Buffers
Directional Cloning versus Random Cloning
Random Cloning
Directional Cloning
Choosing Your Cloning Strategy
Steps in Gene Cloning || A Complete Comprehensive Concept Video - Steps in Gene Cloning || A Complete Comprehensive Concept Video by biologyexams4u 4,995 views 11 months ago 16 minutes - 00:00|| Introduction 00:08|| What is **Gene Cloning**,? 01:18|| 5 steps in **Gene Cloning**, 01:57|| Step 1: **Identification**, & Isolation of ...
Introduction
What is Gene Cloning?
5 steps in Gene Cloning
Step 1: Identification & Isolation of Gene of interest
What is Genomic library?

Step 2: Insertion of this isolated gene in a suitable vector
What is a vector?
What are Restriction enzymes?
What is ligase?
Step 3: Introduction of this vector into a suitable host; E.coli
Different gene transfer methods
Step 4: Selection of the transformed host cell
How antibiotic selection medium works?
Step 5: Multiplication or Expression of desired gene in the host
Extracting Plasmid DNA: How To Do a Miniprep - Extracting Plasmid DNA: How To Do a Miniprep by LabXchange 43,127 views 1 year ago 15 minutes - In this method video, Molly takes us into the lab to teach us how to purify plasmid DNA from a liquid culture of bacterial cells.
Bacterial Plasmid Prep
Extract the Plasmid from the Bacterial Cells
Culture Our E Coli
Designing cloning primers for classical (restriction) cloning - Designing cloning primers for classical (restriction) cloning by Katharine Hubbard 38,917 views 2 years ago 21 minutes - Video use for teaching on module 500709 Cellular Regulation and Biotechnology at the University of Hull.
How Pcr Works
Cloning Primer
Cloning Primers
Start Codon for Translation
Forwards Primer
Leader Sequence
Order the Primer
Remove the Stop Codon
Reverse Primer
What Your Primers Need
Animation 27.1 Basic principle of recombinant DNA technology - Animation 27.1 Basic principle of recombinant DNA technology by Oxford Mastering Biology [%ú ix 297e2193 years ago 2 minutes, 20 seconds
A Detailed Look at PCR Cloning - A Detailed Look at PCR Cloning by SnapGene 2,629 views 1 year ago 7 minutes, 9 seconds - Delve deeper into PCR **cloning**, with this detailed look at #PCRCloning. Learn what features to look for when choosing your ...
Enzymes
Restriction enzyme technique
TA cloning technique
TOPO cloning technique
Steps in Recombinant DNA Technology or rDNA technology | Biotechnology - Steps in Recombinant DNA Technology or rDNA technology | Biotechnology by biologyexams4u 725,125 views 10 years ago 8 minutes, 17 seconds - We have grouped together all our popular recombinant DNA technology into a free course for a better learning experience.
Introduction
Definition of Recombinant DNA Technology, or rDNA technology
Summary of steps in rDNA technology
Step 1: identification and isolation of gene of interest From where we get our gene of interest?
Step 2: Insertion of this isolated gene in a suitable vector using restriction enzyme and ligase. What is a gene cloning vector? What is called rDNA molecule?
Step 3: Introduction of this vector into a suitable organism or cell called the host (transformation)
Step 4: Selection of the transformed host cell
Step 5: Multiplication or expression of the introduced gene in the host
Expression and purification of His-tagged proteins from E. coli - Expression and purification of His-tagged proteins from E. coli by Kwan Lab 77,864 views 3 years ago 33 minutes - Batch i almost forgot to take a sample of the soluble cleared lysate for sds page **analysis**, i'll do that now good thing i still had more ...
Gateway cloning | How does Gateway cloning work? | What are the advantages of Gateway cloning? | - Gateway cloning | How does Gateway cloning work? | What are the advantages of Gateway cloning? | by Animated biology With arpan 35,250 views 2 years ago 5 minutes, 4 seconds - this video would answer the followig questions How does Gateway **cloning**, work? What are the advantages

of Gateway **cloning**,?
Introduction
Gateway cloning
BP clones reaction
Error clone
Molecular cloning overview - Molecular cloning overview by the bumbling biochemist 510 views 2 years ago 21 minutes - In **molecular cloning**, we take a **gene**,* from one place and (most commonly) stick it into a small circular piece of DNA called a ...
Intro
What is molecular cloning
Selection marker
Transformation
Colonies
Prepping
PCR
DNA vs mRNA
Key methods
Ligation independent cloning
Parent plasmids
Temp
Sticky ends
Controls
Molecular Cloning, 4th Edition - Molecular Cloning, 4th Edition by UMass Chan Medical School 3,785 views 11 years ago 3 minutes, 7 seconds - When Michael R. Green, MD, PhD, Howard Hughes Medical Institute Investigator, the Lambi and Sarah Adams Chair in **Genetic**, ...
Overview of PCR Cloning - Overview of PCR Cloning by New England Biolabs 108,569 views 10 years ago 2 minutes, 26 seconds - PCR **Cloning**, is an easy and reliable **cloning**, method utilizing DNA amplification to generate the amplicon. Learn more at ...
INTRODUCTION TO PCR CLONING
AMPLIFICATION
LIGATION
TOXIC GENE FUSIONS
TRANSFORMATION
SCREENING
Functional cloning an molecular approach to identify gene - Functional cloning an molecular approach to identify gene by Kanad's Biology 1,177 views 3 years ago 8 minutes, 45 seconds
A Detailed Look at Gateway Cloning - A Detailed Look at Gateway Cloning by SnapGene 12,632 views 1 year ago 5 minutes, 55 seconds - This video takes a detailed look at ThermoFisher's proprietary system #GatewayCloning. Learn how the 2-step BP and LR ...
Entry Clones
Expression Clones
Multisite Gateway Cloning
Molecular Cloning: A Step-by-Step Review in Question and Answer Format - Molecular Cloning: A Step-by-Step Review in Question and Answer Format by USMLEQA formerly USMLEFastTrack 25 views 1 year ago 4 minutes, 42 seconds - https://usmleqa.com/?p=8477 Question: What is **molecular cloning**,? Answer: **Molecular cloning**, is the production of a recombinant ...
Molecular cloning is the production of a recombinant DNA molecule in a bacterial host.
What is the first step in the process of molecular cloning?
The first step in the process of molecular cloning is to isolate eukaryotic mRNA of interest.
What is the second step in the process of molecular cloning?
The second step in the process of molecular cloning is to add reverse transcriptase to produce complementary DNA (cDNA).
What is the third step in the process of molecular cloning?
The third step in the process of molecular cloning is to insert cDNA fragments into bacterial plasmids containing antibiotic resistance genes.
What is the fourth step in the process of molecular cloning?
The fourth step in the process of molecular cloning is to transform (insert) recombinant plasmid into bacteria.
What is the fifth step in the process of molecular cloning?

The fifth step in the process of molecular cloning is to allow the surviving bacteria on antibiotic medium to produce cloned DNA.
What is the purpose of using reverse transcriptase in molecular cloning?
The purpose of using reverse transcriptase in molecular cloning is to produce complementary DNA (cDNA) from the isolated eukaryotic
Why is it important to insert cDNA fragments into plasmids containing antibiotic resistance genes?
Inserting cDNA fragments into plasmids containing antibiotic resistance genes allows for the selection and
Can you explain the concept of transformation in molecular cloning?
Transformation is the process of introducing recombinant plasmids into bacteria, usually through the use of heat shock or electroporation.
What is the significance of bacteria surviving on antibiotic medium in molecular cloning?
What are some examples of human proteins that can be produced in bacteria through molecular cloning?
cDNA is a complementary DNA copy of mRNA that lacks introns, while mRNA is a primary transcript that contains introns and exons.
What is the function of plasmids in molecular cloning?
How is the recombinant plasmid introduced into bacteria?
In heat shock, the bacteria are briefly exposed to a high temperature to create small pores in the cell membrane, allowing the plasmid to enter.
In electroporation, a high-voltage electric pulse is applied to create similar pores.
What is the significance of antibiotic resistance genes in molecular cloning?
Antibiotic resistance genes are used as a selection marker in molecular cloning.
They allow the identification and isolation of bacteria that have taken up the recombinant plasmid by allowing the bacteria to survive in the presence of an antibiotic.
Choosing a Cloning Technique - Choosing a Cloning Technique by SnapGene 3,824 views 2 years ago 12 minutes, 30 seconds - Choosing the correct **cloning**, technique is a vital part of your **cloning**, process. But sometimes, it can be hard to know where to start.
Vector plus 1 fragment
Vector plus 2 fragments
Vector plus 3-5+ fragments
Gibson Assembly
Gateway cloning
Golden Gate cloning
DNA Technology - In Vivo Gene Cloning - DNA Technology - In Vivo Gene Cloning by Mr Pollock 42,571 views 8 years ago 7 minutes, 34 seconds - In this video we look at: - Using DNA ligase to make recombinant DNA - Plasmids as vectors - Identifying successfully transformed ...
Introduction
Objectives
DNA Ligase
Recombinant DNA
plasmids
Antibiotic resistance
Bacterial transformation
Problems
Replica plating
Fluorescent gene markers
Enzyme markers
Summary
BIOL2416 Chapter 14 – Molecular Genetic Analysis and Biotechnology - BIOL2416 Chapter 14 – Molecular Genetic Analysis and Biotechnology by Dr. D. Explains Stuff 4,072 views 2 years ago 1 hour, 12 minutes - Welcome to Biology 2416, Genetics. Here we will be covering Chapter 14 – **Molecular Genetic Analysis**, and Biotechnology.
Molecular Cloning Lab - Molecular Cloning Lab by Labster 2,684 views 9 years ago 51 seconds - In this lab, the student learns how to assemble an expression vector containing TetOff regulator, RAD52 and GFP. The aim is to ...
use GFP as reporter gene
clone a transformation vector
select transformed cells

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