

## Isolation Characterization Of Bacteria G Biosciences

A survey of endophytic bacteria colonizing roots of processing carrots (*Daucus carota* L. var. *sativus*) was performed with two popular cultivars, Carochoice and Red Core Chantenay, grown at two field locations, Canning and Great Village, in Nova Scotia. Irrespective of cultivar and field location, most bacterial endophyte colony forming units (CFU) were recovered from the carrot crown tissue (96%) compared to the periderm or metaxylem tissues. Greater population densities of endophytic bacteria were recovered from the crowns of cv. Red Core Chantenay carrot ( $5.75 \times 10^5$  CFU/g FW in Great Village;  $3.0 \times 10^5$  CFU/g FW in Canning), which totaled 52% of all of CFU recovered compared to cv. Carochoice. Independent of the cultivar, more endophytes were recovered from carrots grown in Great Village (clay-loam, minimum tillage) compared to Canning (sandy-loam, conventional tillage) (62% vs. 38% respectively).

A practical and well-illustrated guide to microbiological, haematological, and blood transfusion techniques. The microbiology chapter focuses on common tropical infections. The haematology chapter deals with the investigation of anaemia and haemoglobinopathies. The blood transfusion chapter provides guidelines on the use of blood and blood substitutes, selection of donors and collection.

Ranging from the evolution of pathogenicity to oceanic carbon cycling, the many and varied roles that bacteriophages play in microbial ecology and evolution have inspired increased interest within the scientific community. *Bacteriophages: Methods and Protocols* pulls together the vast body of knowledge and expertise from top international bacteriophage researchers to provide both classical and state-of-the-art molecular techniques. With its well-organized modular design, Volume 1: Isolation, Characterization, and Interactions examines a multitude of topics, including the isolation of phages, morphological and molecular characterization, and interaction with bacteria. Written in the highly successful *Methods in Molecular Biology*<sup>TM</sup> series format, chapters consist of brief introductions to the subject, lists of the necessary materials and reagents, readily reproducible laboratory protocols, and a Notes section which details tips on troubleshooting and avoiding known pitfalls. Thorough and cutting-edge, *Bacteriophages: Methods and Protocols* is a valuable reference for experienced bacteriophage researchers as well as an easily accessible introduction for newcomers to the subject.

A practical manual of the key characteristics of the bacteria likely to be encountered in microbiology laboratories and in medical and veterinary practice.

Scientific Study from the year 2016 in the subject Biology - Micro- and Molecular Biology, grade: 1.5, Mar Augusthinose College, language: English, abstract: In this study an attempt was made to evaluate the colour degradation capabilities by collecting the contaminated soil sample from Kalady area and serial dilution was done upto  $10^{-6}$ . From the dilution  $10^{-5}$  was taken and spread plated on Nutrient agar. From the above plate, isolated colonies was obtained which was found to be *Bacillus* sp and *Pseudomonas* sp respectively by morphological, microscopical and biochemical method. The isolated colonies was taken for degradation studies with 1% dye and 1% inoculum in Nutrient broth and OD values and colour change was noted. It was found to be *Bacillus* sp has more degrading capacity in yellow colour than *Pseudomonas* sp. The optimization studies was done with *Bacillus* sp having different concentration of colour (2, 4, 6) with varying pH (4,6,8) and temperature (37°C, 40°C and room temperature). The result was found to be having the concentration of colour with 4% having pH 4 and temperature 37°C.

Biofertilizer are microorganism that helps plants to grow by increasing the quantity of nutrients and mainly associated with the plant rhizosphere. Since these fertilizers contain living microorganisms, it increases or promotes the supply of important nutrients. An increasing number of farmers and agriculturists are turning to the use of biofertilizers, as these are gentler on the soil as against chemical fertilizers. Chemical fertilizers are meant to boost the growth of plants and increase the fertility of the soil; however they cause significant damage to the environment. Biofertilizers helps to restore the natural flora of the soil.

The present investigation pertains to isolation and characterisation of different species of bacteria from the rumen of buffalo calves. Samples of rumen were collected from growing buffalo calves maintained on three different diets such as whole milk, milk replacer-1 and milk replacer 11 for 8-24 weeks. A total number of 289 rumen bacteria were isolated and characterised and all the above isolates were categorised and all the above isolates were categorised into four types cocci, rods, curved rods and coccoid to rod forms and the percent occurrence of the above types were 50, 19, 18 and 13 respectively. Seventeen bacterial isolates were tentatively identified and their incidence was as follows. *S bovis* (16.9%) *R albus* (16.3%) *B fibrisolvens* (16.3%) *R flavefaciens* (14.9%) *B succinogeny* (10.4%) *B rumincola* (7.6%) *B amylophilus* (4.5%) *S amyolytica* (4.2%) *M ruminatum* (1.7) *E ruminatum* (1.7) *Lactobacillus* sp (1.4%) *C longisorum* (1.0%) *S dextrinosolvens* (.%) *P elsolenil* (0.4%) *C loctieadi* (0.4%) and *L multiparus* (0.3%) The biochemical characteristics of the rumen bacteria isolated from the buffalo calves were similar to those reported in to their ruminant species there by indicating that diet is more important than the ruminant species in the establishment of microflora in the rumen. Among the three diets *ruminococcus* sp and *bacteriodes succinogenes* were predominant in milk replacer groups when compared to whole milk group.

Media For Isolation, Characterization, and Identification of Obligately Anaerobic Bacteria Isolation, Characterization and Molecular Genetics of Bacteria Degrading Naphthalene and 1-naphthylamine *Bacteriophages Methods and Protocols*, Volume 1: Isolation, Characterization, and Interactions Humana Press

Petroleum refineries around the world have generated solid wastes during refining process and stocking of crude oil. This leads to critical effects in the environment. Thus remediation of these hydrocarbons by natural decontamination is of at most importance. Bioremediation is a non-invasive and cost effective technique for the clean-up of these petroleum hydrocarbons. In this study I have investigated the ability of microorganism present in the soil sample collected from petroleum contaminated area of Kalady, Kerala, to degrade the hydrocarbons. The soil samples collected were initially screened for diesel degraders by culturing isolates in BH media with diesel as carbon and energy source. The diesel oil degraders were identified as *bacillus* and *pseudomonas* based on the morphological and biochemical studies The ability of these microorganisms to grow by using diesel as carbon source were analysed by culturing them in BHMS broth and evaluating their growth colourimetrically

Research on microbes plays an essential role in the improvement of biotechnological and biomedical areas. It has turned into a subject of expanding significance as new organisms and their related biomolecules are being characterized for several applications in health and agriculture. Microbial biomolecules confer the ability of microbes to cope with a range

of adverse conditions. However, these biomolecules have several advantages over the plant origin, which makes them a suitable target in drug discovery and development. The reasons could be that microbial sources can be genetically engineered to enhance the production of desired natural production by large-scale fermentation. The interaction between microbes and their biotic and abiotic environment is fundamental to numerous processes taking place in the biosphere. The natural environments and hosts of these microorganisms are extremely diverse being reflected by the fact that microbes are widespread and occur in nearly every biological community on Earth. This metabolic versatility makes microbes interesting objects for a range of economically important biotechnological applications. Most of the biotechniques are established but inefficient genetic engineering strategies are still a bottleneck for selected microbe producing industrial scale biomolecules. Therefore, untapped microbial biodiversity and related metabolomics, give a noteworthy wellspring of biologicals for the advancement of meds, immunizations, enhanced plants and for other natural applications. The present eBook volume contains articles on microbial secondary metabolites, microbial biosynthetic potential including biosynthetic gene expression, and metagenomics obtained from microorganism isolated unique from habitats like marine sources, endophytes, thermal springs, deserts, etc.

[Copyright: f3ea365454e8d2e2e0aedb30b278b86d](#)