Archaea: A Laboratory Manual. Halophiles


This is one of a set of three manuals that attempts to encompass all aspects of the techniques currently employed in archaeal research. The appearance of such relatively specialized books reflects the enormous increase in interest in archaea over the past decade plus the increasing realization that molecular and other techniques applied to the likes of E. coli are often not immediately applicable to organisms inhabiting extreme environments. The stated aim of these protocols is to encourage basic and applied research, both to gain fundamental knowledge and exploit the biotechnological possibilities of these odd prokaryotes. The halophile manual is divided into 31 protocols, 4 concerned with growth and identification, 10 concerned with biochemistry and 17 concerned with molecular biology and genetics. The protocols range from two-page affairs that outline how to purify a specific enzyme, to long, extremely detailed general accounts of topics such as RNA transcript analysis and total lipid screening procedures. These are all well-written, logically laid out and easy to follow. At the back of the manual are very useful appendices that include details of culture collection strains, growth media, plus genetic maps of particular strains, structures of shuttle vectors and so on. For any archaeal halophilologist, this manual is a must, but it is probably too specialized for the general microbiology/molecular biology laboratory.

One slight criticism - it may be that most people work with just one or two culture collection isolates, but as someone interested in the biology of the whole group, I would have liked to have seen the excellent sections on growth conditions and growth media matched with a complementary protocol concerned with assigning new isolates to their positions in the taxonomic/phylogenetic hierarchy, despite the contents section detailing four protocols concerned with growth and identification, there is nothing on identification per se. However, only a minor carp!

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Welcome to the Halophile genome site. Show/hide information about the site. The color scheme is inspired by this awesome aerial photo of the salterns outside San Jose by Jerry Ting on Flickr. The site was built by Rob Edwards, of San Diego State University and Argonne National Laboratory, with help from many others. Download the fasta files. You can download fasta files for each of the sequenced halophile genomes here. Compare the halophiles to metagenomes. Â We have compared the halophiles to all publicly available Saltern metagenomes using BLASTN or TBLASTX. Where did this come from? In 2008 at the ASM meeting in Boston, a couple of savvy scientists noticed that Roche diagnostics had some FLX machines sitting idly on the meeting floor.