Diagnostic Virology Protocols (Methods in Molecular Medicine)

From Brand: Humana Press
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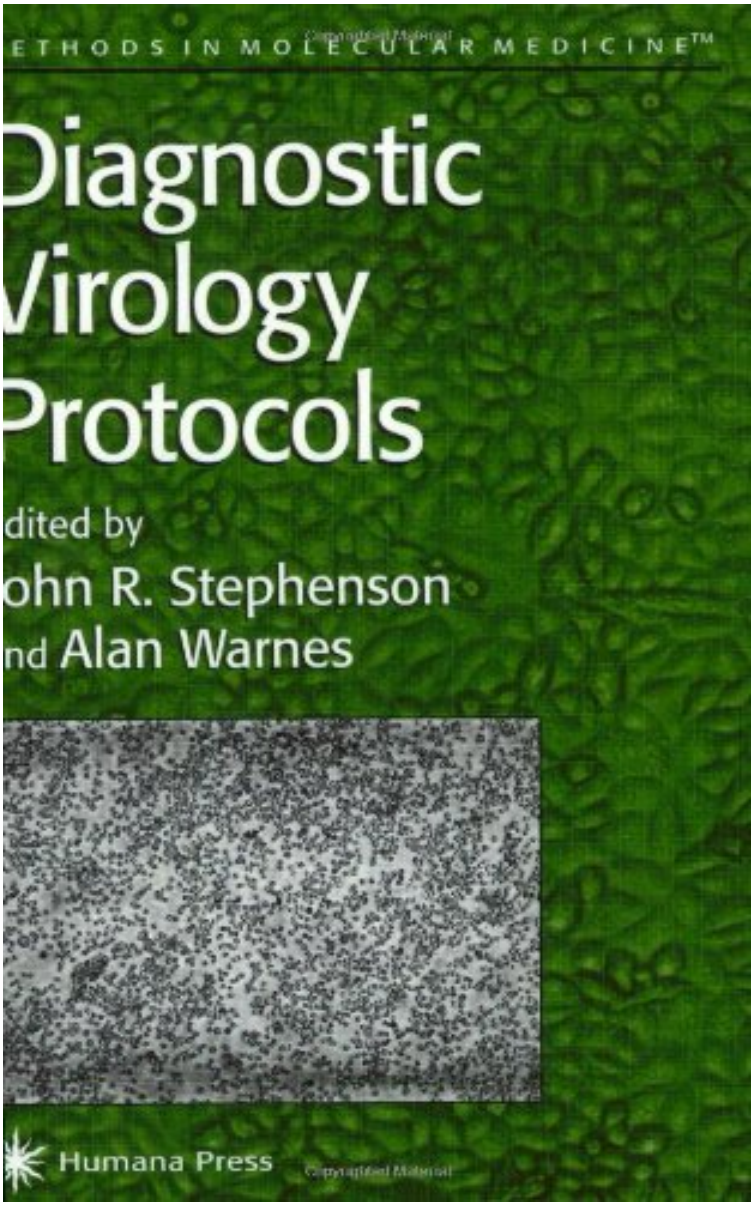

#13679316 in Books Humana Press 1998-08-28Original language:EnglishPDF # 1 9.02 x .86 x 5.98l, 1.36 #File Name: 0896034011370 pages | File size: 48.Mb

From Brand: Humana Press : Diagnostic Virology Protocols (Methods in Molecular Medicine) before purchasing it in order to gage whether or not it would be worth my time, and all praised Diagnostic Virology Protocols (Methods in Molecular Medicine):

The accurate and reliable diagnosis of transmissible diseases is the most powerful weapon available to ensure their control, and in some cases eradication. The detection of parasites in clinical cases, companion and farm animals, and in the environment is relatively easy since many of them are visible to the naked eye, and those that are not are readily detected by light microscopy. Fungal infections can similarly be determined. Bacteria are somewhat harder to detect. Although their presence can frequently be detected by light microscopy, differential diagnosis, beyond their gross morphology, is almost always impossible. However, most bacterial pathogens can be cultured in the laboratory and can be accurately identified by combinations of a series of simple tests such as morphology, staining, antibiotic sensitivity, biochemical analyses, nutrient dependence, and phage sensitivity. Viruses, however, have proved much more difficult; their size and absolute dependence of the host cell for propagation have rendered useless the methods traditionally used for other microorganisms. Until the development of tissue culture in the middle of this century, diagnosis was entirely dependent on the skill and experience of the clinician. But this was an unreliable process since many of the common virus infections exhibit similar clinical symptoms, such as coryza, exanthema, vomiting, diarrhea, neuralgia, and lethargy. Indeed many viral infections display clinical signs that are indistinguishable from bacterial or parasitic infections.

". . .an invaluable source of information for clinical and non-clinical virologists and microbiologists. . .would be a good asset to most research laboratories. . .For those that do perform these assays, it is invaluable."-Doody's Health Sciences Book JournalFrom the Back CoverIn Diagnostic Virology Protocols, internationally recognized experts present cutting-edge techniques for detecting most of the major viruses that afflict mankind, including influenza, hepatitis, herpes, polio, mumps, HIV, and many more. The techniques are well-tested, easily reproducible, and readily employ all the new technologies-PCR, RIA, ELISA, and latex-agglutination-that have revolutionized the field. These methods not only make it possible to do the necessary analysis in hours instead of days, but can also be automated in a laboratory using only low levels of biological containment. Frequently, the protocols for viruses causing human diseases can be adapted to similar viruses of veterinary importance. The book also includes a number of chapters concisely evaluating many emerging technologies and their associated instrumentation. Diagnostic Virology Protocols inaugurates a new and exciting era in which a wide variety of novel technologies are combining to enable both researchers and clinicians alike to perform rapid, accurate, sensitive, and robust analyses of viral diseases. Through its state-of-the-art methods a physician can, for the first time, determine early in a viral infection which antiviral drug should be used and minimize the period of treatment to avoid unnecessary side effects. All those in experimental and clinical virology today will find Diagnostic Virology Protocols the new standard resource for methodology, and wholly indispensable in their day-to-day work. .