Abstract

Because of the fact that there are so many varieties of enteroviruses (EV), to identify the type of an EV-positive pathogen is admittedly a very tedious and time-consuming task. Besides, this work is often further hampered by the insufficient supply of monoclonal antibodies that are readily available and thus regrettably many severe cases have to be left without accurate diagnosis in time for effective treatment. Precise laboratory assay results are not only essential for attending physicians to prescribe effective medical treatment for the patient involved, but also very helpful for the formulation and implementation of disease control measures that follows. Therefore, to improve the methodology of assays, to design locally specific kit of serotyping reagents, and to achieve accurate and speedy identification of PAN-EV are very important for our efforts in curtailing the domestic EV incidents.

In this study, we made use of White New Zealand male rabbits to prepare antibody of EV that has failed in preliminary typing efforts. c Currently, the initial combination includes CA3, CA4, CA8, CA9, CA10, and CA12. We also had the homotypic and heterotypic titers of each neutralizing antibody determined with neutralization tests. Then by using specially arranged EV immune serum pools made up by combining those antisera, we are able to further verify some of the PAN-EV that are not differentiable previously. The kit would facilitate our grasping of identities of sever EV cases in Taiwan in a broad sense as well as be a useful tool for all domestic virology laboratories dealing with EV activity tracking and research in order to make our EV detecting network better in their timing and integrity. Not only great for epidemiological surveillance of the disease, it can also provide reference for disease prevention policy making.

Keywords：immune serum pools；PAN-EV；NT