

Development of Agglutination Test for Detection of isolated Mannoprotein Antigen from Candida Albicans

Masoumeh Rajabibazi¹, Mohammad Javad Rasaee², Mahtab Nouri Fard³, *Zohrea Farahnejad⁴

Received: 26 Dec 2012

Accepted: 11 Apr 2013

Abstract

Background: Candida albicans is one of the most common causes of hospital infections. The aim of this study was to develop a rapid, easy and sensitive way to detect candida albicans.

Material and Methods: Polyclonal antibodies were prepared in rabbits. The antibodies were purified by salt concentration and Ion exchange chromatography. The purified antibody was coated onto the colloidal gold.

Results: Color change (red to blue) was observed when the purified antigens (mannoprotein of Candida albicans cell wall) were added to Polyclonal antibodies. The method was sensitive and easy.

Conclusion: This study indicated that using colloidal gold particle agglutination method can be used for accurate and rapid candida detection Method.

Keywords: Candida Albicans, Mannoproteins, Antigen, Agglutination, Gold

1- Assistant Professor, Clinical Biochemistry Department, Faculty of Medicine, Shahid Beheshti University of Medicine, Tehran, Iran

2- Professor, Medical Biotechnology Department, Medical Sciences Faculty, Tarbiat Modares University, Tehran, Iran

3- Assistant Professor, Infectious Disease Department, Faculty of Medicine, AJA University of Medical Sciences, Tehran, Iran

4- (*Corresponding Author) Assistant Professor, Mycology Department, Faculty of Medicine, AJA University of Medical Sciences, Tehran, Iran.

Tel: +98 21 85952906

E-mail: z.farahnejad@yahoo.com