عنوان مقاله:

Serological Screening Assay of Human Immunodeficiency Virus Type 1 (HIV-1) Based on Recombinant Protein p24-gp41 As a Fusion Protein Expressed in Escherichia Coli

محل انتشار:

چهارمین همایش ملی بیوتکنولوژی ایران (سال: 1384)

تعداد صفحات اصل مقاله: 3

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خلاصه مقاله:

The objective of this study was expression of a recombinant fusion protein p24-gp41 to gain a proper folding from which can be recognized by specific antibodies against human immunodeficiency virus type 1 (HBV-1) for development of a reliable serodiagnostic kit. Serodiagnostic method using enzyme-linked immunosorbant assay (ELISA) with recombinant fusion peotein p24-gp41 was carried out to test the sensivity and specificity of the expressed protein using human sera and different Boston Biomedica Inc (BBI) panels. The level of the expression was determined to be 30% and the final recovery from fermentation and purification process was calculated as 80 mg/L with more than 98% purity. The developed ELISA assay was denobstrated 100% and 99/5% sensivity and specificity, respectively, detection anti - HBV-1 antibody using 900 positive and 10000 negative human sera. As well, the developed assay showed reliable results in comparison with other refrence HIV ELISA kits using various BBI panels. In conclusion, recombinant fusion peotein p24-gp41 was expressed and used to develop a serodiagnostic kit for screening of the HIV-1 that shown high sensivity (100%) and specificity (99/5%) which may be useful to screen of large groups of blood donors.

کلمات کلیدی:

Human immunodeficiency virus (HIV), recombinant fusion protein p24-gp41, serodiagnostic method , ELISA