

## عنوان مقاله:

Detection of Anti-IgGs against Heat Shock Proteins ۲۷ and ۲۰, HP۹۱ Peptide, and HIV-۱ Polypeptides in HIV-Positive and Negative Patients

## محل انتشار:

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## خلاصه مقاله:

**Introduction:** A simple and sensitive diagnosis method is needed to identify HIV infection in sera of untreated, treated, and drug-resistant patients. The purpose of this study is to determine whether heat shock proteins (Hsp)-۲۷ and -۲۰ and HP۹۱ peptide along with HIV-۱ polypeptides can serve as potential biomarkers to distinguish HIV infection in untreated, treated, and drug-resistant individuals compared to HIV-negative subjects. **Methods:** At first, human sera were obtained from ۱۴۱ participants, including ۲۰ naïve HIV-infected, ۷۱ treated, ۳۰ drug-resistant, ۲۰ HIV-negative (healthy/control) individuals. The recombinant Hsp۲۷, Hsp۲۰, and five designed HIV-۱ polypeptides were expressed in *Escherichia coli* and purified by affinity chromatography under denaturing or native conditions. Finally, the antibodies against these antigens were quantified in sera using ELISA. **Results:** Our data showed that HIV-infected patients significantly displayed higher serum levels of anti-Hsp۲۷, anti-HP۹۱, and anti-Nef-Tat-Gp۱۶۰-P۲۴, anti-Nef-Vpr-Gp۱۶۰-P۲۴, anti-Nef-Vif-Gp۱۶۰-P۲۴, anti-Nef-Vpu-Gp۱۶۰-P۲۴, and anti-Nef-Rev-Gp۱۶۰-P۲۴ polypeptide antibodies than healthy groups ( $p < ۰.۰۵$ ), but not for anti-Hsp۲۰. Moreover, the serum levels of antibodies against Hsp۲۷, Hsp۲۰, HP۹۱, and HIV-۱ polypeptides were not statistically significant between different groups of patients ( $p > ۰.۰۵$ ). **Conclusion:** The levels of anti-Hsp۲۷ and anti-HP۹۱ antibodies in serum increased in HIV-۱ seropositive subjects along with antibodies against five HIV-۱ polypeptides suggesting their potential value as a diagnostic marker for HIV-۱ infections.

## کلمات کلیدی:

HIV-۱ proteins, Heat shock proteins, HP۹۱ peptide, Antibody detection

## لینک ثابت مقاله در پایگاه سیویلیکا:

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