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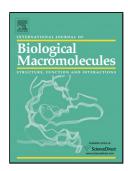
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## ACCEPTED MANUSCRIPT

- 1 International Journal of Biological Macromolecules
- 2 Proteomics analysis reveals differential pattern of widespread
- 3 protein expression and novel role of histidine-rich glycoprotein and
- 4 lipopolysaccharide-binding protein in rheumatoid arthritis
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#### 14 Abstract

15

biomarker for the screening of autoimmune and infectious diseases. However, it is suggested that RF would be a more powerful biomarker when used complementarily with RF-correlated proteins. In this study, we utilized a proteomic approach to analyze global protein expression in RF-low and RF-high subjects using high-performance liquid chromatography tandem mass spectrometry. Histidine-rich glycoprotein (HRG) and lipopolysaccharide-binding protein (LBP) were found to be differentially expressed between RF-low and RF-high subjects (cut-off > 2-fold, p < 0.05), which was validated by enzyme-linked immunosorbent assay. To evaluate whether both proteins allow discriminating rheumatoid arthritis patients from healthy controls, receiver-operating characteristic (ROC)

Rheumatoid factor (RF) is an auto-antibody against antigen-antibody immune complexes. RF is valuable as a

curves were analyzed. Areas under the ROC curves of HRG and LBP were 0.861 and 0.888, respectively. The

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