

## Supplementary Information

### ATR-FTIR spectral discrimination between normal and tumorous mouse models of lymphoma and melanoma from serum samples

Hemendra Ghimire<sup>1</sup>, Mahathi Venkataramani<sup>2,3</sup>, Zhen Bian<sup>3</sup>, Yuan Liu<sup>2,3</sup> and A. G. Unil Perera<sup>1,2,\*</sup>

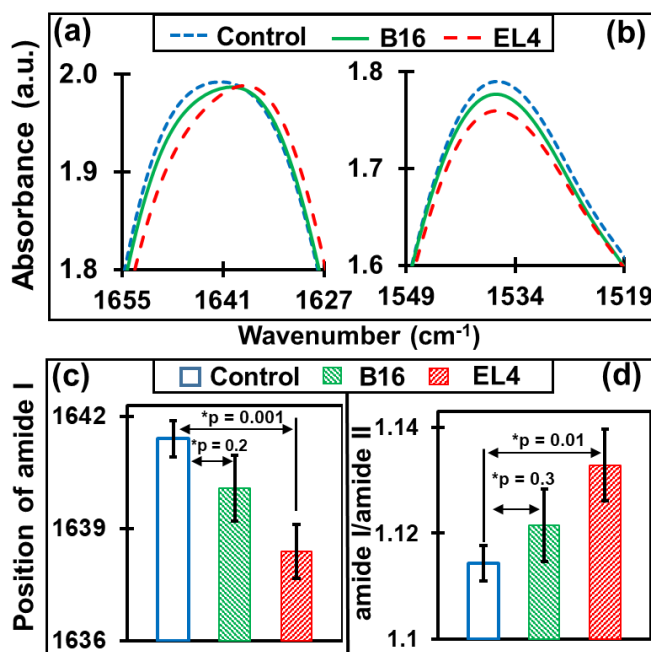
\*Corresponding Author: E-mail: [uperera@gsu.edu](mailto:uperera@gsu.edu), Phone: 4044136037, Fax: 4044136025

<sup>1</sup> Department of Physics and Astronomy, GSU, Atlanta, GA 30303, USA

<sup>2</sup> Center of Diagnostics and Therapeutics, Georgia State University, Atlanta, GA 30302, USA

<sup>3</sup> Center for Inflammation, Immunity and Infection, Georgia State University, Atlanta, GA, 30303, USA

### Supplementary Results: Position and Ratio Analysis of Amide Peaks (I and II)



**Figure S1. Position and ratio analysis between amide I and amide II.** (a) Amide I peak shifts towards the lower wavenumber in malignant cases. The mean position of amide I for control is 1641 cm<sup>-1</sup>, B16 is 1640 cm<sup>-1</sup>, and EL4 is 1638 cm<sup>-1</sup>. (b) Shows the amide II spectral band position and decreasing trend of absorbance values in cancerous cases. (c) Bar graph representation of the shift of the position of amide I group with higher significance for EL4 but not B16. (d) Alteration in the ratio (amide I/amide II) due to malignancy. Substantial difference is found between control and EL4 lymphoma, but difference is less for B16 case.