

**Supporting Information**

**A novel label-free electrochemical immunosensor based on the composite of LPCs-SnS<sub>2</sub>  
and AuNPs for the detection of human chorionic gonadotropin**

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The FTIR spectra of the LPCs was shown in Fig. S1, the broad peak at  $3435\text{ cm}^{-1}$  are associated with the typical O–H stretching vibrations<sup>1,2</sup>. The peak at  $1734\text{ cm}^{-1}$  was stretching vibration absorbance of C=O<sup>1,3</sup>. In addition, the bands in  $1000\text{--}1300\text{ cm}^{-1}$  were attributed to C–OH stretching and O–H bending vibrations<sup>4,5</sup>. These results indicated that the LPCs had abundant oxygen containing functional groups

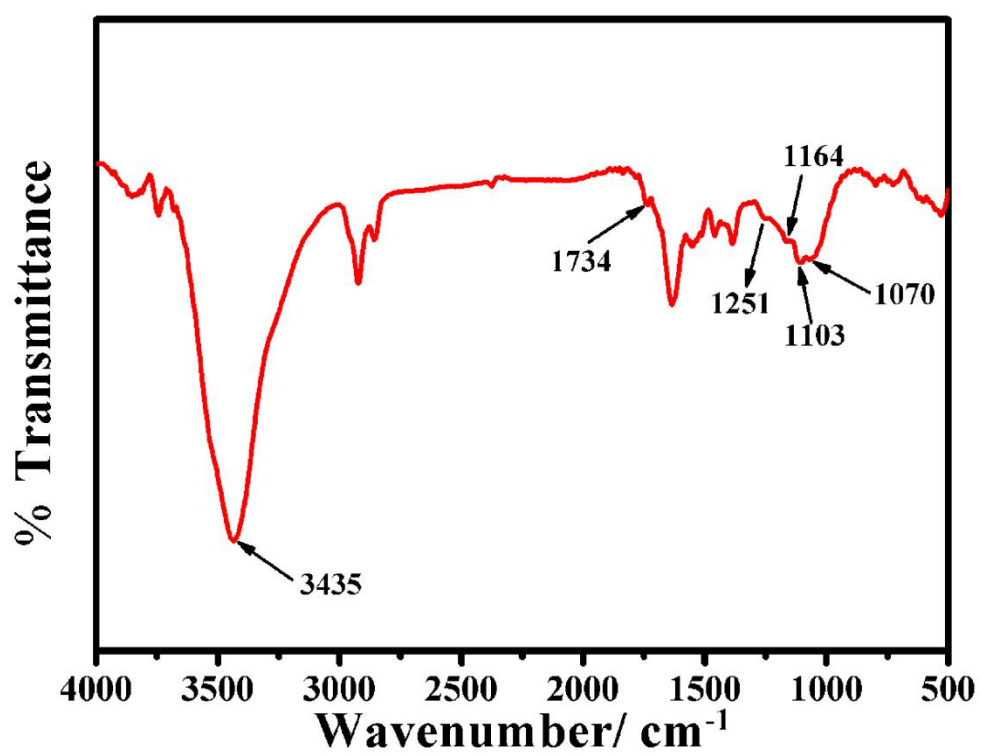
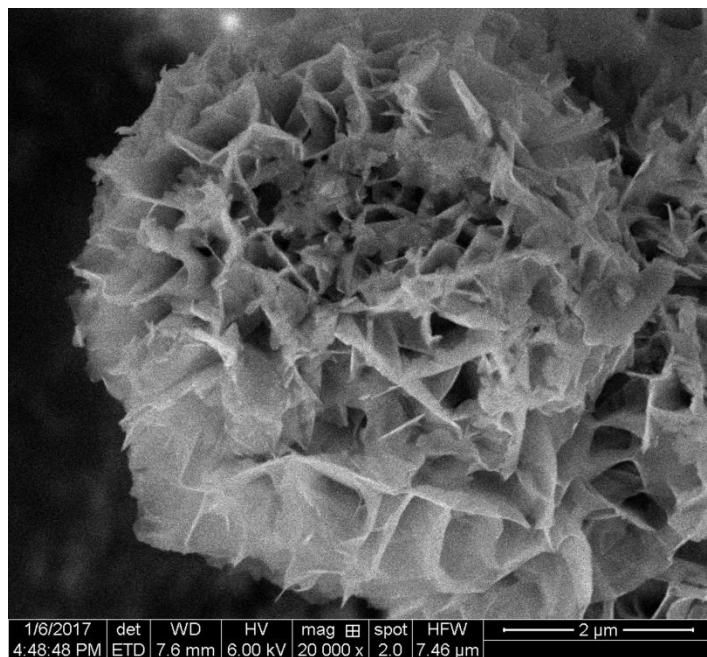
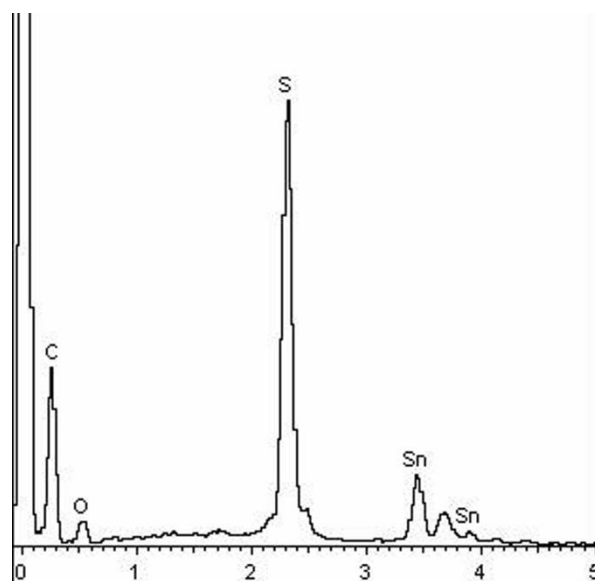


Fig. S1. The FTIR spectra of LPCs



**Fig. S2.** SEM images of pure SnS<sub>2</sub>



**Fig. S3.** EDS of LPCs-SnS<sub>2</sub>-2

#### References

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