***Supplementary Materials for***

**Synergistic effect of berberine-based Chinese medicine assembled nanostructures on diarrhea-predominant irritable bowel syndrome *in vivo***

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1. 5-HT in colon tissue.

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| **Table S1** 5-HT in colon tissue (ng/mL) |
| **group** | **mean** | **S.D.** |
| Normal  | 92.38  | 16.43  |
| Model | 193.08  | 22.66  |
| Complex | 56.83  | 17.71  |
| Mixture  | 154.27  | 2.33  |
| Baicalin  | 112.53  | 8.11  |
| Berberine | 72.20  | 14.72  |

2. VIP in colon tissue.

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| **Table S2** VIP in colon tissue (ng/L) |
| **group** | **mean** | **S.D.** |
| Normal  | 128.75  | 23.36  |
| Model | 358.05  | 110.31  |
| Complex | 71.18  | 2.48  |
| Mixture  | 141.78  | 17.73  |
| Baicalin  | 314.73  | 95.70  |
| Berberine | 113.60  | 9.53  |

3. 5-HT of serum.

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| **Table S3** 5-HT of serum (ng/mL) |
| **group** | **mean** | **S.D.** |
| Normal  | 58.81  | 22.55  |
| Model | 117.56  | 13.21  |
| Complex | 41.71  | 4.06  |
| Mixture  | 76.02  | 11.64  |
| Baicalin  | 104.21  | 31.19  |
| Berberine | 67.71  | 5.51  |

4. ChAT of serum.

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| **Table S4** ChAT of serum (U/L) |
| **group** | **mean** | **S.D.** |
| Normal  | 258.82  | 87.08  |
| Model | 371.62  | 5.92  |
| Complex | 196.11  | 12.41  |
| Mixture  | 234.18  | 3.20  |
| Baicalin  | 147.59  | 31.96  |
| Berberine | 264.74  | 19.93  |

5. Relative expression of NF-κB in colon tissue.

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| **Table S5** Relative expression of NF-κB in colon tissue  |
| **group** | **mean** | **S.D.** |
| Normal  | 24.41 | 1.06 |
| Model | 33.65 | 5.75 |
| Complex | 23.32 | 4.38 |
| Mixture  | 32.64 | 6.07 |
| Baicalin  | 32.37 | 9.87 |
| Berberine | 37.58 | 2.34 |

6. ROC curve of 16s.

