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**Supplementary Material**

**Dynamic variations in the chemical constituents of Tiebangchui stir-fried with Zanba by integrating UPLC-Q-TOF-MS based metabolomics and DESI-MSI**

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**Table S1** Linear regression equation, linear range of aconitine, 3-deoxyaconitine and benzoylaconine.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Compound** | **Regression equation** | **Correlation coefficient (*r*2)** | **Linear range**  **(mg/mL)** | **LOD**  **(µg/mL)** | **LOQ**  **(µg/mL)** |
| Aconitine | y = 6,080,931.78x – 8,093.94 | 1.000 | 0.0037 – 0.5968 | 0.15 | 0.38 |
| Benzoylaconine | y = 6,796,478.59x – 12,086.80 | 1.000 | 0.0400 – 0.4798 | 0.02 | 0.05 |
| 3-Deoxyaconitine | y = 6,697,444.36x – 19,256.00 | 1.000 | 0.0035 – 0.2076 | 0.08 | 0.16 |

**Table S2** Precision, repeatability, stability, and recovery of aconitine, 3-deoxyaconitine and benzoylaconine.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Compound** | **Precision RSD (%)**  **(n = 6)** | **Repeatability RSD (%)**  **(n = 6)** | **Stability RSD (%)**  **(n = 6)** | **Recoveries (%) \*** | |
| **(n = 9)** | **RSD (%)** |
| Aconitine | 0.18 | 0.44 | 1.37 | 98.68 | 1.33 |
| Benzoylaconine | 0.72 | 1.74 | 1.57 | 100.44 | 1.93 |
| 3-Deoxyaconitine | 0.02 | 0.68 | 1.51 | 100.94 | 1.50 |

\*Recovery (%) = (amount found - original amount)/ amount spiked \* 100%