

**Table S1** Purity and suppliers of authentic standards used for identification and quantification.

| No. | Compound                         | Purity (%) | Source   |
|-----|----------------------------------|------------|--|
| 1   | 3-Butenenitrile                  | ≥ 95.0     | Amethyst Chemicals                               |
| 2   | 4-Pentenenitrile                 | ≥ 96.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 3   | 4-(Methylsulfanyl)butyl nitrile  | ≥ 98.0     | Adamas-beta (Shanghai, China)                    |
| 4   | 5-(Methylsulfanyl)pentanenitrile | ≥ 98.0     | Macklin Biochemical (Shanghai, China)            |
| 5   | Phenylacetonitrile               | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 6   | 3-Phenylpropanenitrile           | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 7   | Hexanal                          | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 8   | Heptanal                         | ≥ 97.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 9   | Octanal                          | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 10  | Nonanal                          | ≥ 96.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 11  | Decanal                          | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 12  | Undecanal                        | ≥ 97.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 13  | Dodecanal                        | ≥ 95.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 14  | (Z)-3-Hexenal                    | ≥ 92.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 15  | (E)-2-Heptenal                   | ≥ 97.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 16  | (E)-2-Octenal                    | ≥ 96.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 17  | (E)-2-Nonenal                    | ≥ 97.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 18  | (E,Z)-2,6-Nonadienal             | ≥ 95.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 19  | (E,E)-2,4-Nonadienal             | ≥ 90.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 20  | (E)-2-Decenal                    | ≥ 95.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 21  | (E,E)-2,4-Decadienal             | ≥ 90.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 22  | trans-4,5-Epoxy-(E)-2-decenal    | ≥ 95.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 23  | 3-Methylbutanal                  | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 24  | 2-Methylbutanal                  | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 25  | Phenylacetaldehyde               | ≥ 90.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 26  | Benzaldehyde                     | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 27  | 1-Penten-3-one                   | ≥ 97.0     | Ron Reagent (Shanghai, China)                    |
| 28  | 6-Methyl-5-hepten-2-one          | ≥ 99.0     | Sigma-Aldrich (St. Louis, MO, USA)               |
| 29  | 1-Octen-3-one                    | ≥ 97.0     | Dibo Chemical Technology (Shanghai, China)       |
| 30  | (Z)-1,5-Octadien-3-one           | ≥ 95.0     | Toronto Research Chemicals (Toronto, Canada)     |
| 31  | 1-Octen-3-ol                     | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 32  | (Z)-3-Hexen-1-ol                 | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 33  | 2-Methoxyphenol                  | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 34  | 4-Methylphenol                   | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 35  | 4-Vinylguaiacol                  | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 36  | 2-Phenylethanol                  | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 37  | 2-Isopropyl-3-methoxypyrazine    | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 38  | Allyl isothiocyanate             | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 39  | Dimethyl disulfide               | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 40  | 4-Isothiocyanato-1-butene        | ≥ 96.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 41  | Dimethyl trisulfide              | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 42  | 3-(Methylthio)propanal           | ≥ 90.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 43  | 2-Pentylfuran                    | ≥ 98.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 44  | Acetic acid                      | ≥ 99.5     | Aladdin Biochemical Technology (Shanghai, China) |
| 45  | Butanoic acid                    | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |
| 46  | Octanoic acid                    | ≥ 99.0     | Aladdin Biochemical Technology (Shanghai, China) |