

**Table S1** Sampled *Cymbidium* species and their voucher information used in this study. Voucher samples were deposited in the Zhejiang Provincial Key Laboratory for Genetic Improvement and Quality Control of Medicinal Plants, Hangzhou Normal University, China.

| Subgenus           | Section             | Species Name  | Voucher No. | Longitude<br>(E) | Latitude<br>(N) | Collection site             |
|--------------------|---------------------|---|-------------|------------------|-----------------|-----------------------------|
| <i>Jensoa</i>      | <i>Jensoa</i>       | <i>C. georingii</i> Rchb.f.   | C-HZ001     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. goeringii</i> Rchb.f.   | C-HZ002     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. goeringii</i> Rchb.f.   | C-HZ003     | 113° 27'         | 23° 13'         | Guangzhou, Guangdong, China |
|                    |                     | <i>C. goeringii</i> Rchb.f.   | C-HZ004     | 113° 27'         | 23° 13'         | Guangzhou, Guangdong, China |
|                    |                     | <i>C. goeringii</i> var. <i>serratum</i> (Schltr.)<br>Y.S.Wu & S.C.Chen       | C-HZ005     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. goeringii</i> var. <i>longibracteatum</i><br>Y.S.Wu et S.C.Chen         | C-HZ006     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. faberi</i> Rolfe  | C-HZ007     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. faberi</i> Rolfe  | C-HZ008     | 113° 27'         | 23° 13'         | Guangzhou, Guangdong, China |
|                    |                     | <i>C. faberi</i> Rolfe  | C-HZ009     | 115° 85'         | 28° 68'         | Nanchang, Jiangxi, China    |
|                    |                     | <i>C. faberi</i> Rolfe  | C-HZ010     | 113° 62'         | 34° 75'         | Zhengzhou, Henan, China     |
|                    |                     | <i>C. kanran</i> Makino   | C-HZ011     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. kanran</i> Makino   | C-HZ012     | 110° 83'         | 24° 83'         | Gongcheng, Guangxi, China   |
|                    |                     | <i>C. kanran</i> Makino   | C-HZ013     | 119° 92'         | 28° 45'         | Lishui, Zhejiang, China     |
|                    |                     | <i>C. kanran</i> Makino   | C-HZ014     | 119° 3'          | 26° 08'         | Fuzhou, Fujian, China       |
|                    |                     | <i>C. goeringii</i> var. <i>tortisepalum</i><br>(Fukuyama) Y.S.Wu et S.C.Chen | C-HZ015     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. cyperifolium</i> Wall.ex Lindl  | C-HZ016     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. quibeense</i> K.M.Feng et H.Li  | C-HZ017     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. ensifolium</i> (L.) Sw.   | C-HZ018     | 117° 25'         | 31° 83'         | Hefei, Anhui, China         |
|                    |                     | <i>C. ensifolium</i> (L.) Sw.   | C-HZ019     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. ensifolium</i> (L.) Sw.   | C-HZ020     | 119° 3'          | 26° 08'         | Fuzhou, Fujian, China       |
|                    |                     | <i>C. ensifolium</i> (L.) Sw.   | C-HZ021     | 106° 63'         | 26° 65'         | Guiyan, Guizhou, China      |
|                    |                     | <i>C. sinense</i> (Andr.) Willd.  | C-HZ022     | 115° 85'         | 28° 68'         | Nanchang, Jiangxi, China    |
|                    |                     | <i>C. sinense</i> (Andr.) Willd.  | C-HZ023     | 102° 72'         | 25° 05'         | Kunming, Yunnan, China      |
|                    |                     | <i>C. sinense</i> (Andr.) Willd.  | C-HZ024     | 113° 27'         | 23° 13'         | Guangzhou, Guangdong        |
|                    |                     | <i>C. sinense</i> (Andr.) Willd.  | C-HZ025     | 119° 3'          | 26° 08'         | Fuzhou, Fujian, China       |
|                    | <i>Geocymbidium</i> | <i>C. lancifolium</i> Hook.   | C-HZ026     | 113° 27'         | 23° 13'         | Guangzhou, Guangdong, China |
|                    |                     | <i>C. lancifolium</i> Hook.   | C-HZ027     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
| <i>Cyperorchis</i> | <i>Iridorchis</i>   | <i>C. iridioides</i> D.Don  | C-HZ028     | 102° 72'         | 25° 05'         | Kunming, Yunnan, China      |
|                    |                     | <i>C. hookerianum</i> Rchb.f.   | C-HZ029     | 108° 37'         | 22° 82'         | Nanning, Guangxi, China     |
|                    |                     | <i>C. tracyanum</i> Rolfe   | C-HZ030     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. lowianum</i> Rchb.f.  | C-HZ031     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
|                    |                     | <i>C. wenshanense</i> Y.S.Wu et F.Y.Liu                                       | C-HZ032     | 102° 72'         | 25° 05'         | Kunming, Yunnan, China      |
|                    | <i>Eburnea</i>      | <i>C. maguanense</i> F.Y.Liu  | C-HZ033     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |
| <i>Cymbidium</i>   | <i>Floribunda</i>   | <i>C. floribundum</i> Lindl.  | C-HZ034     | 120° 15'         | 30° 28'         | Hangzhou, Zhejiang, China   |