**Figure 1–Source Data 1** *Capsella* plants used in the present study

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Species** |  | **Line ID** | **Line notation** | **Latitude (N)** | **Longitude (E)** | **Genetic cluster\*** | **Reference** |
| *Capsella bursa-pastoris* |  | BEL5 | Cbp-6 | 50.55 | 128.28 | EUR | this study |
|  | JO56 | Cbp-11 | 31.97 | 35.98 | ME | this study |
|  | SE14 | Cbp-8 | 62.64 | 17.94 | EUR | this study |
|  | TBS195 | Cbp-3 | 33.57 | 107.45 | ASI | this study |
|  | TR83 | Cbp-12 | 41.02 | 28.97 | ME | this study |
|  | TY118 | Cbp-4 | 37.55 | 112.32 | ASI | this study |
| *Capsella grandiflora* |  | 81 | - | 37.30 | 22.06 | - | (Duan *et al.*, 2023) |
| *Capsella orientalis* |  | URAL-RUS5 | - | 55.11 | 61.39 | - | (Duan *et al.*, 2023) |

\* The three major genetic clusters (populations) of natural *C. bursa-pastoris* were Asian (ASI), Middle-East (ME), and Europe (EUR), defined by Kryvokhyzha *et al.* (2016, 2019).