

**Supplementary Figure S1.** Floral organ development and morphogenesis of *A. graminifolia*. (A–C): Flower bud differentiation period 1; (D–G): Sepal growth period 2; (H–K): Pillar development period 3; L–O: Flower dyeing period 4; (P–Q): Flowering period 5; A: The inflorescence; B: The inflorescence longitudinal section; C: Flower 1 (Fl 1); D, H, L: The whole flower bud; E, I, M: The longitudinal section of the flower bud; F, J, N: The pillar; G, K, O, Q: The organ anatomy; P: The flower; Se: Sepal; LSe: The lateral sepal; DSe: The dosal sepal; LPe: Lateral petal; La: Labe llum; Pi: Pillar; Br: Bract; Fl 1, Fl 2, Fl 3: Flower 1, F lower 2, Flower 3; An: Anther; Ro: Rostellum; St: Stigma; Sty: Style; Anc: Anther cap.

