

Genus Datasheet

Datasheet No. A-028.002
(Family.Genus)

DBT- Network P

1. Genus: *Alocasia* (Schott) G. Don

2. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Monocots
- Order: Alismatales R. Br. ex Bercht. & J. Presl
- Family: Araceae Juss.
- Genus: *Alocasia* (Schott) G. Don

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Monocotyledon
Series: Nudiflorae
Ordo: Aroideae Arn.
Genus: *Alocasia* (Schott) G. Don

3. Species:

Global: 80

India: 8

4. Taxonomic riddles: Phenotypic plasticity ¹⁶

5. Distribution:

Global: Tropical & Subtropical Asia to East Australia

India: Andaman and Nicobar Islands, East Himalaya, East and North East India

6. Habit and Habitat: Evergreen herb. Found in tropical moist forest.

7. Economic Importance: Commonly used decorative plant, leaves and stalks of some cultivars are edible, also used in traditional medicine

8. DNA content range:

Methodology:

4C (33.47pg)⁶

Feulgen microdensitometry ⁶

9. Basic chromosome number(s): $x=7$ ⁹

$x=14$ ¹⁹

10. Zygotic chromosome number (s): $2n=14$ ²⁸

$2n=24$ ^{2,5}

$2n=26$ ^{5,21}

$2n=28$ ^{1,2,3,4,5,7,8,9,10,11,12,13,16,17,18,19,22,23,24,26,27,29,30,31}

$2n=42$ ^{2,5,19}

$2n=56$ ^{5,9,16,27}

$2n=68$ ^{1,5,22}

$2n=70$ ⁹

$2n=98$ ⁶

11. Gametic chromosome number (s): $n=13$ ²⁵

$n=14$ ^{2,5,31}

$n=21$ ^{2,5}

$n=70$ ²⁰

12. Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene chromosomes/ Neocentric chromosomes):

13. Ploidy level: Diploid ^{6,13,19,24,27}

Tetraploid ²⁷

Pentaploid ²⁰

Octaploid ⁹

Decaploid ⁹

14. Nature of polyploidy (auto, segmental, allo, autoallo): segmental pentaploidy ²⁰

15. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty):

16. Karyograms: ^{16,18,28,30} **Meiosis:** ²⁰

17. Banding pattern(s): Combined PI and DAPI (CPD) bands and DAPI⁺ bands ¹³,
CMA⁺ bands ¹⁶, CMA⁺ and DAPI⁺ bands ¹⁸

18. Physical mapping of chromosomes: **GISH:**

5S and 45S FISH ¹³

19. Phylogenetic relationship at Chromosomal; DNA level: DNA level ^{14,15,18,32,33,34,35}

20. Cytogenetic mechanism (s) underlying evolution

21. Linkage map:

22. Any other information: Pollen sterility 95%^{20,31}
Desynapsis ³¹