

Species Datasheet

Datasheet No. P-030.002.004
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Adiantum caudatum* L.

Subspecies:

Variety:

Cultivar

Hybrid

Image file

2. Synonyms:

Adiantum caudatum var. *angustilobatum* Bonap.

Adiantum lyratum Blanco

3.Systematic Position:

Christenhusz 2011

- Class: Equisetopsida C.Agardh
- Subclass: Polypodiidae Cronquist, Takht. & Zimmerm.
- Order: Polypodiales Link.
- Family: Pteridaceae E.D.M. Kirchn
- Subfamily: Vittarioideae (C. Presl) Crabbe, Jermy & Mickel
- Genus: *Adiantum* L.
- Species: *Adiantum caudatum* L.
- Subspecies:

4.Distribution:

Global:E. Asia - China, India, Sri Lanka, Malaysia, Indonesia, Philippines, New Guinea.

India: Kerala (Palakkad, Wayanad, Thiruvananthapuram, Kollam, Idukki, Pathanamthitta, Alappuzha, Kottayam districts), Arunachal Pradesh, Sikkim, Darjeeling, NE-India, C-India, S-India

5.Indigenous/Exotic/Endemic;Cultivated/Wild:

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Terrestrial herbs , In moist deciduous and semi-evergreen forests

8.Life Form:

9.Economic Importance:

10. Probable Progenitor of:

11.DNA

C-value Methodology

12.Basic chromosome number(s): $x=30$ ^{1, 12, 14, 15, 16, 44, 67, 71, 72, 73, 74, 75, 77, 83, 84, 87, 95, 100}

13. Zygotic chromosome number(s): $2n=60$ ^{1, 4, 44, 67, 71, 72, 73, 74, 75, 77, 87, 95, 100}

60 (apogamous)¹⁰⁰, 58 ^{72, 73, 74, 90}^{4, 42}, 90 ^{1, 42, 86, 87, 89}¹⁰⁰, 120 ⁴

14. Gametic chromosome number(s): $n=30$ ^{1, 12, 14, 15, 16, 44, 67, 71, 72, 73, 74, 75, 77, 83, 84, 87, 95}

60 ^{77, 83, 84, 87, 100}, 90 ^{1, 38, 42, 86, 87, 89, 100},

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

Image file

16.Ploidy level:Diploid (sexual)^{1, 4, 12, 14, 15, 16, 44, 67, 71, 72, 73, 74, 75, 77, 83, 84, 87, 95, 30}

Diploid (apogamous)¹⁰⁰,

Triploid^{4, 42}

Triploid (apogamous)^{1, 42, 86, 100}

Tetraploid (sexual)^{4, 60, 42, 77, 84, 85, 87}

Hexaploid (sexual)³⁸

Image file

17. Agametoploidy:

18. Nature of polyploidy (auto, segmental, allo, autoallo): Amphidiploid⁸⁷

19. Genomic formula: AABB⁸⁷

20. Aberrant chromosome number(s) (aneuploidy, aneusomaty, polysomaty): Aneuploidy^{72, 73, 74}

21. Somatic chromosomes:

Karyotype

Chromosome size

NOR chromosome(s)

Degree of asymmetry

Image file

22. Banding pattern(s):

Image file

23. Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization:

Image file

24. Genomic in situ hybridization:

Image file

25. Linkage map:

Image file

26. Chromosome associations:

Female meiosis

Male meiosis Diploid (sexual): 30II^{1, 12, 14, 15, 16, 44, 67, 71, 72, 73, 74, 75, 77, 83, 84, 87, 95}

Diploid apogamous: 8-celled sporangium 60II¹⁰⁰

Triploid apogamous: 8-celled sporangium 90II^{42, 89, 100}

16 celled sporangia (75%) 15-30II+60-30I, 8-celled sporangia (25%) 90II^{86, 87}

Tetraploid: 60II^{42, 77, 83, 84, 87}

Hexaploid: 90II³⁸

Image file

27. Chromosome distribution at anaphase I:

28. Genetic diversity:

Chromosomal level

Image file

DNA level

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis;

Pollen stainability; Translocation etc.): Apogamous^{1, 42, 86, 100}