Species Datasheet

Datasheet No. P-030.002.015 (family.genus.species)

DBT- Network Programme

1.Taxon:

Species: Adiantum lunulatum Burm.

Subspecies: Variety: Cultivar Hybrid

Image file

2. Synonyms:

Adiantumarcuatum Sw. Adiantumlunatum Cav. Adiantumphilippense L. Adiantumphilippense var. lobatum C. Chr. Pterislunulata Retz.

3.Systematic Position:

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- 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 lunulatum Burm.
- Subspecies:
- Variety:

4.Distribution:

Global:Widely distributed in the tropics through Africa, Asia, Australia, Central America and northern S. America

India: Widespread in Himalaya and western, central, and southern Indian mountains

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat:Shady hill forests in India. In forests, thickets, or wooded ravines, most commonly in rocky soil, on banks of streams and rivers, at elevations from 200 - 1,500 metres in Guatemala,Epiphyte, lithophyte, terrestrial.

8.Life Form:

9.Economic Importance: The plant is considered to be a bronchio-dilator, diuretic and pectoral. It is one of the constituents of 'Hansraj', a preparation esteemed in India for the treatment of coughs. It is used extensively in Indian for the treatment of fevers in children. The rootstock is considered good for treating fever and elephantiasis. A decoction of the root is used in the treatment of throat affections

10. Probable Progenitor of:

11.DNA C-value Methodology

12.Basic chromosome number(s):x=30^{1, 20, 34, 38, 40, 51, 52, 53}

13. Zygotic chromosome number(s):2n=60^{1, 27, 28, 34, 47, 49, 51, 52, 53},

88⁴⁸,

90 1, 10, 11, 13, 14, 15, 17, 29, 49, 63, 72, 73, 74, 76, 80, 83, 84, 98, 99, 100, 101, 109

120^{1, 72}

14. Gametic chromosome number(s):

30^{1, 20, 38, 40, 51, 52, 53},

60 1, 5, 18, 24, 27, 28, 47, 49, 51, 52, 53, 60, 100, 101,

88⁴⁸,

90 1, 10, 11, 14, 15, 16, 17, 27, 28, 29,49, 50, 51, 52, 53, 63, 72, 73, 74, 76, 79, 80, 83, 84, 98, 99, 100, 101, 109

15.Specialized chromosomes (B chromosomes/Sex chromosomes/Polytene

chromosomes/Neocentric chromosomes):

Image file

16.Ploidy level:Diploid (sexual)^{1, 20, 40, 38, 51, 52, 53},
Diploid (apogamous)^{27, 28, 47, 49, 51, 52, 53},
Triploid (apogamous)<sup>1, 17, 27, 28, 29, 48, 49, 50, 51, 52, 53, 63, 72, 73, 74, 76, 79, 80, 83, 84, 98, 99, 100, 101, 109,
Tetraploid(sexual)<sup>1, 5, 18, 24, 51, 52, 53, 72, 100
</sup></sup>

Image file

17.Agametoploidy:

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

19.Genomic formula:

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

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 30II ^{20, 38, 40, 51, 52, 53}

Diploid (apogamous): 8-celled sporangium 60II 47, 51, 52, 53

8-celled sporangium 60II, 16-celled sporangium 29II+2I^{27, 49}

Triploid (apogamous): 16-celled sporangium 30II+30I,8-celled sporangium 90II^{74, 75}

8-celled sporangium 90II 1, 13, 17, 28, 29, 50, 51, 52, 53, 63, 76, 79, 80, 83, 84, 98, 99, 109

16-celled sporangium 1 III+30II+27I, 8-celled sporangium 90II^{27, 49}

Tetraploid: 60II^{1, 5, 18, 24, 51, 52, 53, 100, 101}

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; Translocationsetc.): Apogamy 1, 13, 17, 27, 28, 29, 48, 49, 50, 51, 52, 53, 63, 74, 75, 76, 79, 80, 83,

84, 98, 99, 109