Species Datasheet

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Datasheet No. P-030.001.002
(family.genus.species)

DBT- Network Programme

1.Taxon:

Species: *Actiniopteris radiata* (Sw.) Link
Subspecies:
Variety:
Cultivar
Hybrid

Image file

2. Synonyms:

Acrostichumradiatum (Sw.) Poir.
Aspleniumradiatum Sw.

3.Systematic Position:
Christenhusz 2011

- Class: Equisetopsida C.Agardh
- Subclass: Polypodiidae Cronquist, Takht. & Zimmerm.
- Order: Polypodiales Link.
- Family: Pteridaceae E.D.M. Kirchn
- Subfamily: Pteridoideae C.Chr. ex Crabbe, Jermy & Mickel
- Genus: *Actiniopteris* Link
- Species: *Actiniopteris radiata* (Sw.) Link
- Subspecies:

4.Distribution:

Global: India, Sri Lanka, United Arab Republic, Iran, Pakistan, Africa, Mascaren Islands, Iran and Afghanistan

India: Kerala (Palakkad and Idukki districts)

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

6.Threat Status:

IUCN:

BSI:

7.Habit and Habitat: Terrestrial herbs , Epilithic or epiphytic Growing in grasslands and dry decidous forests., 500 - 1300 m

8.Life Form:

9.Economic Importance: The plant is said to be anthelmintic, alterative and astringent. It is used in the treatment of prolonged malarial fevers and to arrest haemorrhages

10. Probable Progenitor of:

11.DNA

C-value **Methodology**

12.Basic chromosome number(s):x=29[1, 2, 3, 4, 5, 6, 7, 8, 10]

13. Zygotic chromosome number(s):2n=87[1, 2, 3, 4, 5, 7, 8, 10]

14. Gametic chromosome number(s):n=58 [6], 87 [1, 2, 3, 4, 5, 7, 10]

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

Image file

16.Ploidy level: Triploid (apogamous) [1, 2, 3, 4, 5, 7, 10] , Tetraploid (sexual) [6]

Image file

17.Agametoploidy:

18.Nature of polyploidy (auto, segmental, allo, autoallo): Allotriploid[1]

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 Triploid (apogamous): 87 II (8-celled sporangium (90%), regular meiosis resulting in 32 spores)[1, 2, 3, 4, 5, 7, 8, 10]

Triploid (apogamous): 29I+29II (16-celled sporangium (10%), resulting in highly irregular meiosis with n-Is and IIs and finally in highly irregular spores)[1]

Tetraploid (sexual): 58 IIs (16-celled sporangium resulting in 64 spores) [6]

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, 2, 3, 4, 5, 6, 7, 10]