

Species Datasheet

Datasheet No. A-140.002.009
(family.genus.species)

DBT-1

1. Taxon:

Species: *Vignaglabrescens* Marechalet. al.

Subspecies:

Variety:

Cultivar:

Hybrid:

Image file:

2. **Synonyms:** *Phaseolus calcaratus* Roxb. var. *glaber* (Roxb.) Prain, *P. glaber* Roxb., *P. glabra* Roxb., *P. mungo* L. var. *glaber* (Roxb.) Baker, *P. piglaber* Roxb., *Vigna radiata* (L.) R. Wilczek var. *glabra* (Roxb.) Verdc.

3. Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: Fabales Bromhead
- Family: Fabaceae Lindl.
- Subfamily: Faboideae Rudd
- Genus: *Vigna* Savi
- Species: *Vignaglabrescens* Marechalet. al.

Bentham and Hooker (1862)

Kingdom: Plantae
Division: Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: Rosales Bercht. & J. Presl
Ordo: Leguminosae Juss.
Subordo: Papilionaceae Giseke
Genus: *Vigna* Savi
Species: *Vignaglabrescens* Marechalet. al.

4. Distribution:

Global: Japan, Mauritius, Philippines, Tanzania, and Vietnam

India: Bihar, Orissa, West Bengal

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

6. Threat Status:

IUCN:

BSI:

7. **Habit and Habitat:** Erect herb; terrestrial

8. **Life Form:** Therophytes

9. **Economic Importance:** Used as a forage crop

10. **Probable Progenitor of:**

11. DNA

C-value

Methodology

2C(4.95pg)Microdensitometer¹⁴

12. Basic chromosome number(s):

13. Zygotic chromosome number(s):2n=44^{4,5,14,25,73}

14. Gametic chromosome number(s):n=22^{4,73}

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

Image file

16. Ploidy level: Tetraploid^{4,5,14,25,73}

Image file

17. Agametoploidy:

18. Nature of polyploidy (auto, segmental, allo, autoallo):Allotetraploid¹⁴⁷

19. Genomic formula:

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

21. Somatic chromosomes:²⁵

Karyotype Majority metacentric chromosomes

Chromosome sizeSmall

NOR chromosome(s)

Degree of asymmetrySymmetrical

Image file

22. Banding pattern(s):CMA/DAPI banding⁵

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: $22\text{II}^{4, 73}$

Image file

27. Chromosome distribution at anaphase I: $22:22^4$

28. Genetic diversity:

Chromosomal level

DNA level⁹

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

Pollen stainability; Translocations etc.): Pollen stainability: $69.08\%^4$