Species Datasheet

Datasheet No. A-140.002.031 **DBT- Networ**
(family.genus.species)

1. Taxon:

Species:*Vignaumbellata*(Thunb.) Ohwi& H.Ohashi
Subspecies:
Variety:
Cultivar:
Hybrid:

Image file:

2.Synonyms:*Azukiaumbellata* (Thunb.) Ohwi,*Dolichosumbellatus*Thunb.,*Phaseolus calcaratus*Roxb., *P. pubescens*Blume, *P. riccardianus* Ten., *P. ricciardus* Ten., *P. torosus* Roxb.,*Vignabrachycalyx* Baker, *V. calcarata* (Roxb.) Kurz, *V. papuana* Baker f., *V. umbellata* var. *umbellata*

3.Systematic Position:

APG IV (2016)

- Kingdom: Plantae
- Clade: Angiosperms
- Clade: Eudicots
- Clade: Rosids
- Order: FabalesBromhead
- Family: FabaceaeLindl.
- Subfamily: Faboideae Rudd
- Genus: *Vigna*Savi
- Species: *V. umbellata*(Thunb.) Ohwi& H. Ohashi

Bentham and Hooker (1862)
Kingdom: Plantae
Division:Phanerogamia
Class: Dicotyledons
Subclass: Polypetalae
Series: Calyciflorae
Cohors: RosalesBercht. & J. Presl
Ordo: LeguminosaeJuss.
Subordo: PapilionaceaeGiseke
Genus: *Vigna*Savi
Species: *V. umbellata*(Thunb.) Ohwi& H. Ohashi

4. Distribution:

Global: Bhutan, Bangladesh, Cambodia, China,India,Malaysia,Nepal, Pakistan, Sri Lanka, and Vietnam
India: Assam, Gujarat, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Madhya Pradesh, Mizoram, Nagaland, Orissa,Punjab,Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh, West Bengal

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

6. Threat Status:

IUCN:

BSI:

7. Habit and Habitat: Twinning or Sub erect herb

8. Life Form: Therophytes

9. Economic Importance: Pulse crop, Fodder, Green manure

10. Probable Progenitor of:*Vignaglabrescens*[12,13,149]

11. DNA

C-value	**Methodology**
2.84pg	Microdensitometer [14]

12. Basic chromosome number(s):x=11[1,2]

13. Zygotic chromosome number(s):2n=22[1 - 6,14,15,77]

14. Gametic chromosome number(s):n=11[4]

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

Image file

16. Ploidy level: Diploid[1 - 6,14,15,77]

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:[1,2,3,6,15,77]

KaryotypeMetacentric / Submetacentric chromosomes

Chromosome size Small

NOR chromosome(s)4

Degree of asymmetry Symmetrical

Image file

22. Banding pattern(s):CMA/DAPI banding[5]

Image file

23. Physical mapping of chromosomes:

In situ hybridization

Image file

Fluorescent in situ hybridization:18S- 5.8S - 26S and 5S ribosomal gene families [6]

Image file

24. Genomic in situ hybridization:[6]

Image file

25. Linkage map:[17]

Image file

26.Chromosome associations:

Female meiosis:

Male meiosis:11II[4]

Image file

27.Chromosome distribution at anaphase I:11:11[4]

28. Genetic diversity:

Chromosomal level[3,77]

DNA level[7,8,9,10,21,22,59,60,68,124,127,128,129,130,131]

29. Any other information (Apomixis; Inversion; Male sterility; Pollen grain mitosis; Pollen stainability;Translocations etc.): Pollen stainability:82-99%[4]