Abstract

Curcuma caesia Roxb. (Black turmeric) is an endangered medicinal plant of the state. The rhizome of this plant has been traditionally used for centuries as a folklore remedy. The main bioactive substances in the rhizomes are curcuminoids, despite the tremendous importance of this compound, molecular and functional analyses of its medicinal value were hampered by lack of tools such as ESTs and ordered genomic contigs. But with the development of turmeric EST
database by David Gang's group (ArREST), it has provided a platform for elucidating the curcuminoid biosynthetic pathway in Curcuma longa. All the gene sequences involved in curcuminoid synthesis were retrieved from NCBI. EST and CDS based primers were designed by using online Batch Primer3 software. Designed primers would be further validated in wet lab, by amplifying these primers with cDNA of Curcuma caesia for putative expression analysis.

References

- Resmi, M. S. and Soniya, E. V. 2012. Molecular cloning and differential expressions of two cDNA encoding Type III polyketide synthase in different tissues of Curcuma longa. 491, 278-283.

Index Terms

Computer Science

Artificial Intelligence

Keywords

Curcuma Caesia Roxb. Curcuminoid Genes Polyketide Synthases
In Silico Survey of Genes involved in Curcuminoid Synthesis for Expression Studies in Curcuma caesia Roxb.