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IDI has the key function during the biosynthesis of terpenoids compound

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Terpenoid compound can be classified into monoterpenes ($(C_5H_8)_2$), Sesquiterpenes ($(C_5H_8)_3$), diterpenoids ($(C_5H_8)_4$), triterpenoids ($(C_5H_8)_6$) and polyterpenes ($(C_5H_8)_n$, $n>6$) according to the numbers of isoprene or isopentane ($(C_5H_8)_n$) and the derivative of having the oxygen and different saturation degree from the structure. The biosynthesis of different terpenoid compound can be produced depending on cross-talk between the MEP pathway and the mevalonate (MVA) pathway. IDI (Isopentenyl diphosphate isomerase) is the common and key enzyme related to the biosynthesis of terpenoid and gibberellin compounds. It is well known that the IDI gene families exist in the diverse species of the earth and research works have been carried out in the plants of *Arabidopsis annua* L./*Artemisia apiacea*, the fungus of *Ganoderma lucidum*, etc. Why do I think the necessity and importance of IDI gene families regarding the biosynthesis of terpenoids compound? Because IDI gene families are located in the upstream of the pathway. The function and change of it can bring the influences or actions to the whole course of metabolism pathway and downstream products. We cannot ignore the essence of research courses or dynamics on the direction of research projects. The quantities of IDI gene families found are not same or diverse because of the assay and characteristics involved in the species. Moreover, IDI gene families have the certain function during the course of reciprocal transformation between the gene families of IPP and DMAPP. I will give the review in the way of presentation from the aspects of exist formation, identification, cloning sequences, tissue-specific expression, protein structures and functions and applications of the different creatures so as to acquire the supports and good advice coming from the experts who are interested and has the famous experience about the research projects.

Biography

Du Qing has completed her PhD in the year 2015 in the major of Pharmacognosy from the Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences and Peking Union Medical College and got the Doctor degree in 2016. She began the Post-doctoral studies at the Institute of Genetics and Developmental Biology, Beijing, China from the July of 2015 to August of 2016. She is the Member of American Society of Plant Biologists and Chinese Society for Cell Biology. She is a Pharmacist and the Member of Chinese Pharmacist Association. She has published more than 5 papers in the BMC and Chinese famous journals in research group.

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