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[1]陈丽华,刘丽君,刘页丽,等.不同基因型大豆Fd-GOGAT基因cDNA序列的克隆与分析[J].大豆科学,2011,30(03):374-378.[doi:10.11861/j.issn.1000-9841.2011.05.0374]
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摘要： 克隆了6个不同基因型大豆的Fd-GOGAT基因，序列比对分析结果表明:不同基因型大豆的Fd-GOGAT基因序列相似性很高，可设计出通用Real-time PCR引物，检测Fd-GOGAT基因的表达规律。在东农42Fd-GOGAT基因序列的编码区内出现了1个8核苷酸的缺失，产生了移码突变，导致其C端缺失了79个氨基酸的保守序列，造成谷氨酸合成酶大亚基C端保守结构域（gltB_C）不完整。Fd-GOGAT基因分子进化树和蛋白质序列分子进化树都显示东农42、半野生大豆、东农46 Fd-GOGAT基因序列进化距离较近。

Abstract: Fd-GOGAT genes from six different soybean varieties were cloned. The comparative analysis showed the sequences of GOGAT genes in different soybean varieties were very identical, so we can design general real-time PCR primer to detect express regulation of Fd-GOGAT genes. The coding sequence of ?Fd-GOGAT gene in Dongnong42 appeared an absence of 8 nucleotides, which brought frameshift mutation, led to its C-terminal lack of 79 amimo acids conserved sequence and the GS_1 big subunit C-terminal conserved domain (gltB_C) were not in their integrity. Molecular and protein evolution tree analysis showed Dongnong 42, Dongnong 46 and G.gracilis had similar evolution distance for Fd-GOGAT gene.

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