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摘要: 通过对绥农14根瘤菌的分离鉴定,最终得到可以在绥农14上高效结瘤的寒地大豆根瘤菌,命名为HD001。III型效应因子诱导分析表明HD001具有较特异的分泌谱带,与HH103相比较至少具有4条带型差异。对根瘤菌的基因组和抗生素抗性进行了初步分析,证明HD001具有羧苄青霉素(Cb)抗性。并在东北218份大豆种质资源上对其进行结瘤实验鉴定,其中高效结瘤资源10份,低效结瘤资源11份。这些资源对大豆与根瘤菌共生结瘤机制的深入研究具有重要意义。

Abstract: In this study,the nodule of Suinong 14 were used to isolate new rhizobium strain.A cold field type rhizobium was isolated and identified.This rhizobium had high nodulation capacity in Suinong 14,which named as HD001.The secretome of type 3 effectors,support that HD001 is one special rhizobium of cold field area.Compared to HH103,there were 4 protein bands had difference at least.By the nodulation test on 218 soybean germplasm,the high nodule number and low nodule number phenotype varieties were identified.Ten high nodulation capacity germplasm and eleven low nodulation capacity germplasm were found.These germplasm had a good meaning for the further study of mechanism to the symbiosis of soybean and rhizobium.

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