K-12 MG1655 菌种说明

基因型：

F- lambda- ilvG- rfb-50 rph-1(NC_000913)

基本信息：

抗性：无
平台编号：bio-82268
培养基：LB
菌株类别：大肠杆菌
培养条件：37℃，有氧，LB
质粒转化：42℃热激
保存方式：20%甘油，-20℃
基本应用：用于基因克隆
备注：

菌株简介：

K-12 MG1655 是一株 K 系列的大肠杆菌，经检测无 Amp 和 Kan 抗性，可用 LB 培养基，37℃培养，其代谢类型是异养兼性厌氧型，可用于代谢研究、基因编辑等实验。

The original K-12 wild-type strain from the Stanford collection contained both the F plasmid and phage lambda. MG1655 was constructed by curing that strain using acridine orange and UV.This strain was sequenced by the Blattner laboratory because it approximates wild-type E. coli and "has been maintained as a laboratory strain with minimal genetic manipulation, having only been cured of the temperate bacteriophage lambda and F plasmid by means of ultraviolet light and acridine orange, respectively." (Blattner, et al. 1997). The mutations listed in the genotype are present in most K-12 strains and were probably acquired early in the history of the laboratory strain. A frameshift at the end of rph results in decreased pyrE expression and a mild pyrimidine starvation, such that the strain grows 10 to 15% more slowly in pyrimidine-free medium than in medium containing uracil (Jensen 1993). The ilvG- mutation is a frameshift that knocks out acetohydroxy acid synthase II (Lawther, et al. 1982). The rfb-50 mutation is an IS5 insertion that results in the absence of O-antigen synthesis (Liu and Reeves 1994).

MG1655 was derived and named by Mark Guyer from strain W1485, which was derived in Joshua Lederberg's lab from a stab-culture descendant of the original K-12 isolate. This original E. coli strain K-12 was obtained from a stool sample of a diphtheria patient in Palo Alto, CA in 1922 (Bachmann, B., pp. 2460-2488 in Neidhardt et al.1996, Escherichia coli and Salmonella: Cellular and Molecular Biology, ASM Press).MG1655 grows on LB and M9 minimal medium (+ Glucose + 1ug/ml thiamine).

注意事项：

1、为了您的安全和健康，请穿实验服并戴一次性手套操作。本产品仅可用于实验室研究，不能用于动物，人体以及作为食品添加剂等用途。

2、使用甘油菌时可不完全融解，在甘油菌表面蘸取少量涂布固体琼脂平板即可，也可完全融解后使用，但随着冻融次数的增加，菌株的活力会逐渐下降。