United States Patent [19]

Anderson et al.

[11] **4,371,614**

[45] **Feb. 1, 1983**

[54] ***E.COLI* BACTERIA CARRYING RECOMBINANT PLASMIDS AND THEIR USE IN THE FERMENTATIVE PRODUCTION OF L-TRYPTOPHAN**

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[21] Appl. No.: **180,296**

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[51] **Int. Cl.**[3] **C12N 1/00;** C12R 1/19; C12N 9/00; C12P 13/22; C12P 21/00; C12N 15/00; C12N 1/20

[52] **U.S. Cl.** **435/108;** 435/317; 435/849; 435/183; 435/68; 435/172; 435/253

[58] **Field of Search** 435/108, 172, 317, 253

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[57] **ABSTRACT**

A bacterium which comprises a host of the genus *Escherichia* deficient in the enzyme tryptophanase carrying a plasmid with genetic information to control L-tryptophan production is useful for the fermentative production of L-tryptophan in high yields.

34 Claims, 4 Drawing Figures

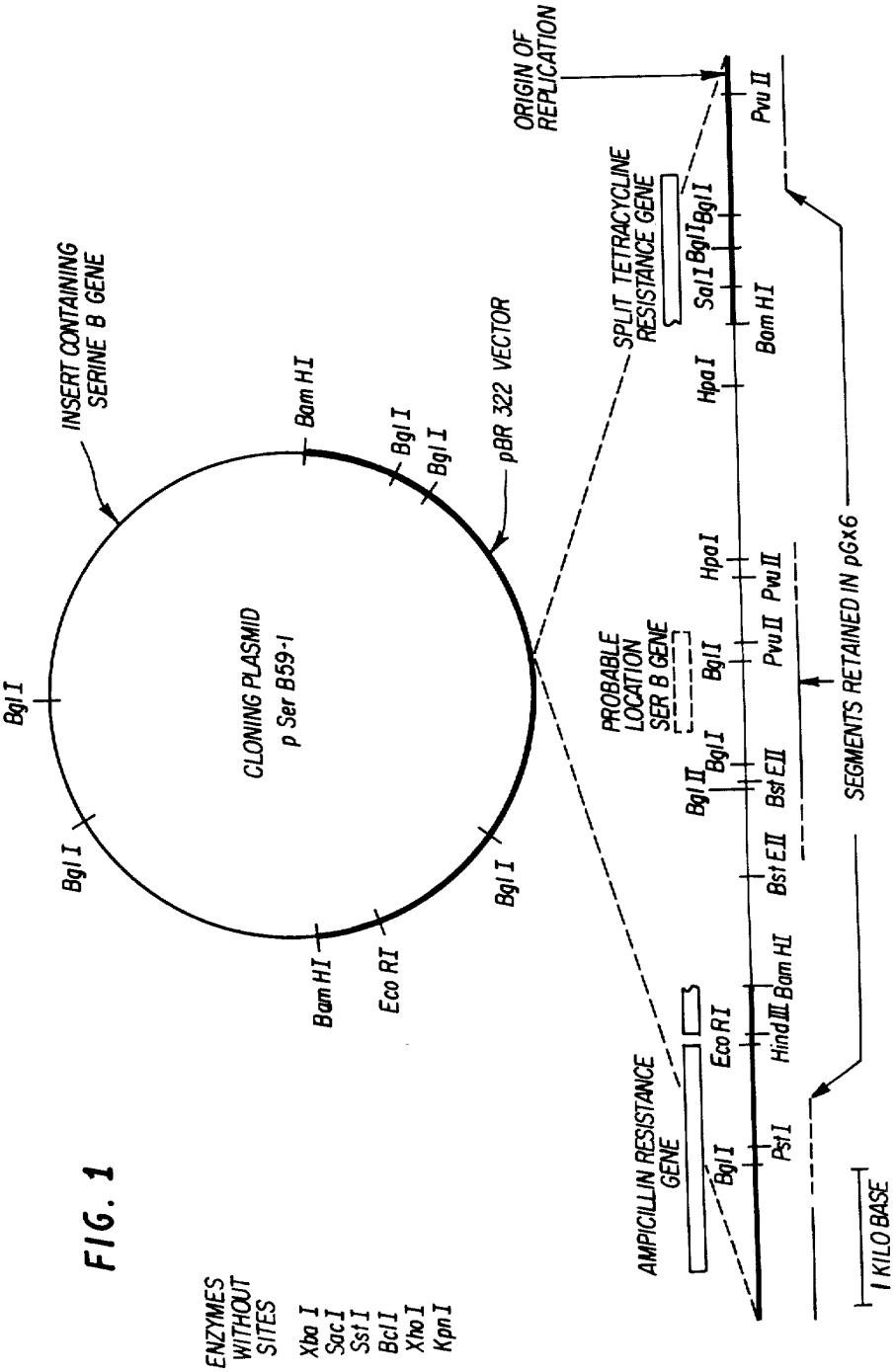

FIG. 1

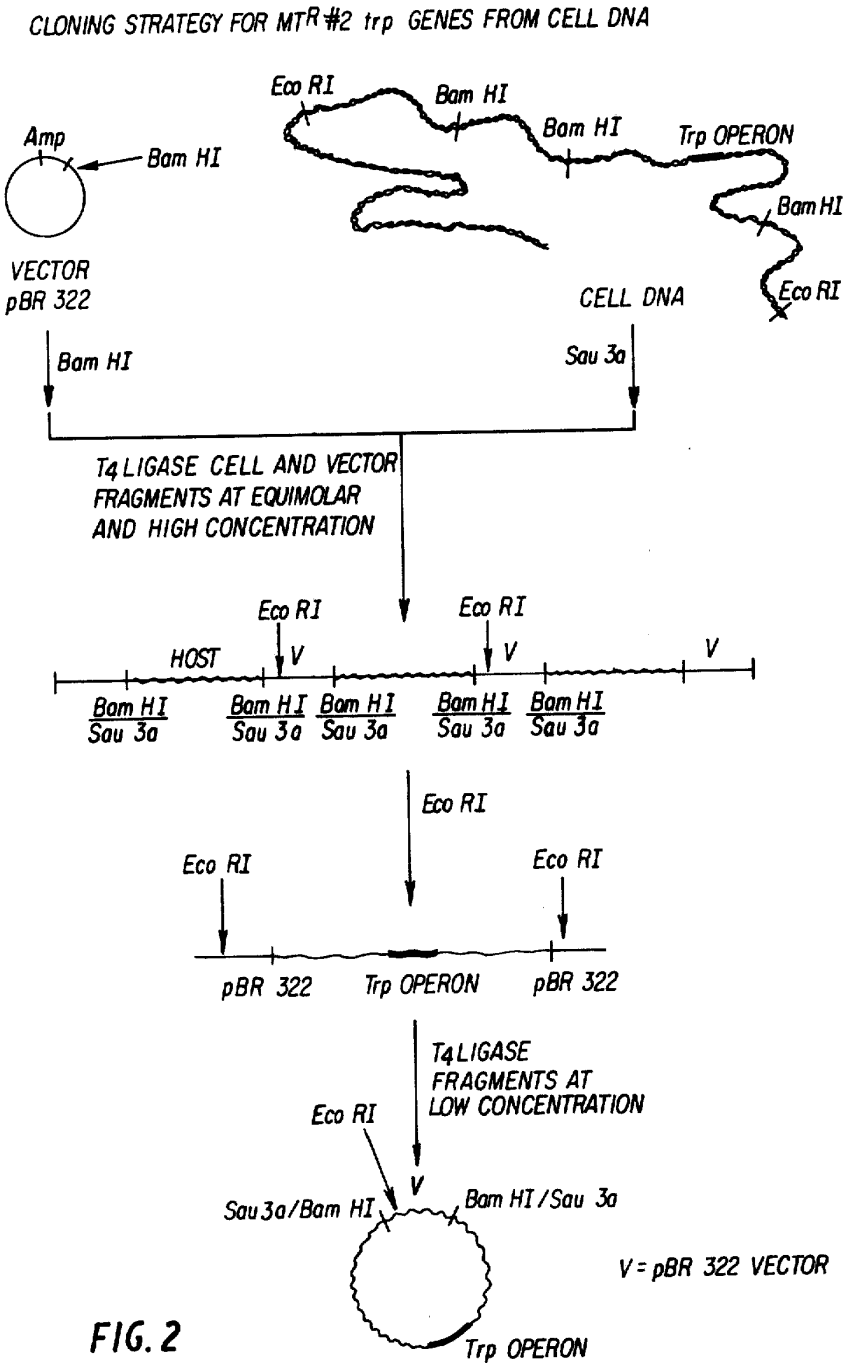

FIG. 2

CONSTRUCTION OF PLASMIDS

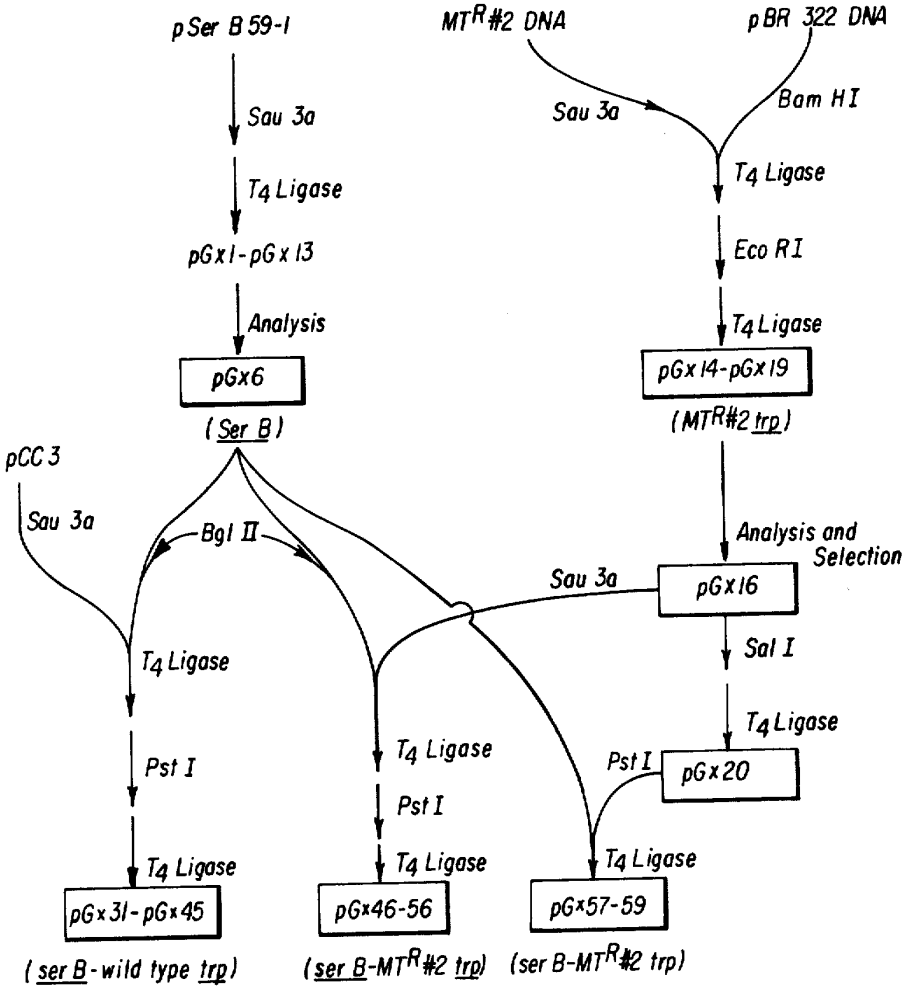

FIG. 3

CONSTRUCTION OF HOST STRAINS

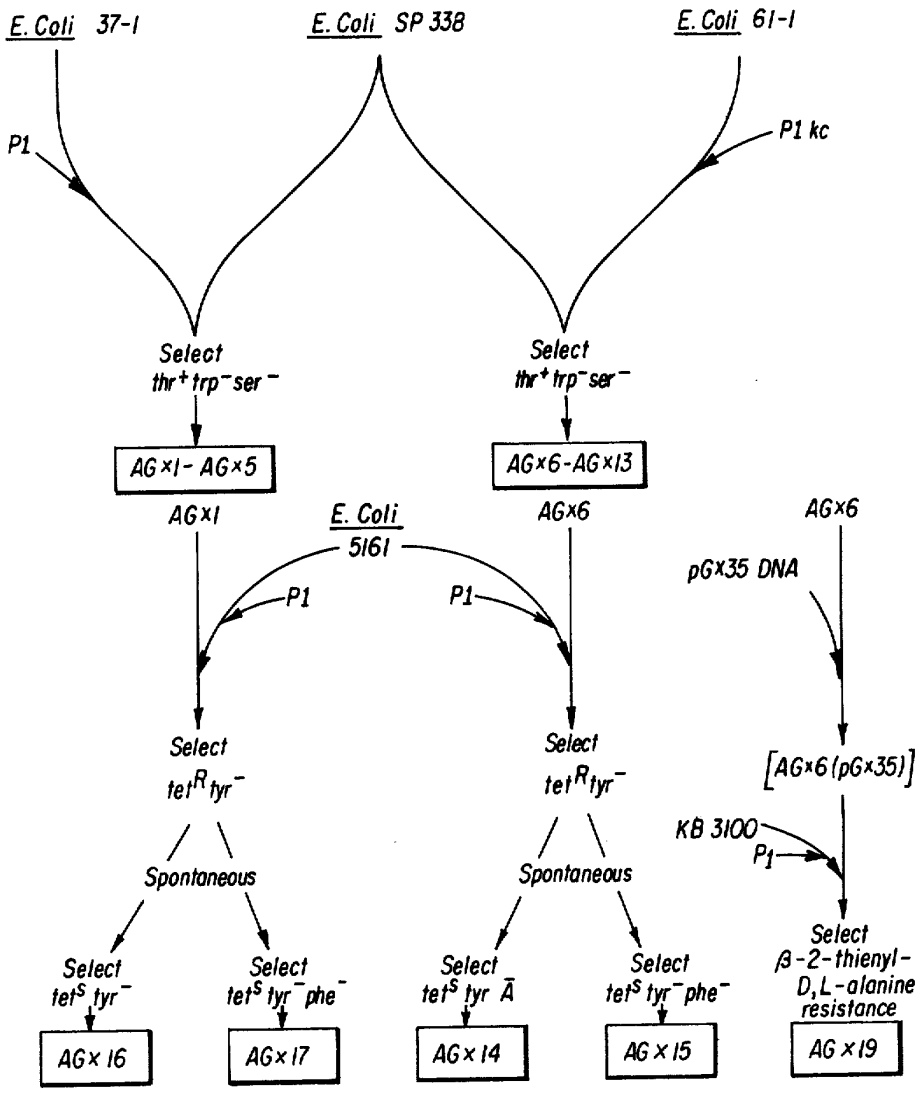

FIG. 4

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