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# 庆丰链霉菌的致死接合现象

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摘要 庆丰链霉菌各种衍生菌株的平板或斜面能自发产生麻点现象(pock)，而当种内或种间杂交时 ，这种现象出现得更频繁。从麻点中心和周围孢子中可分别分离到具有产生麻点能力的菌株 (Ltz+)和本身虽然不能产生麻点但却可以作为检测麻点产生的指示菌株(Ltz-)， 本文的研究结果表明，庆丰链霉菌的麻点现象Ltz+菌株和作为指标菌的Ltz-菌株细胞之 间在接合过程中的一种致死接合作用(lethal zygosis),致死率可达99%以上。决定这种致死 能力的遗传因子能感染转移，可用已知质粒消除因子(如吖啶黄、高温预培养)处理及原生质 体再生过程诱发消除。据此，我们认为庆丰链霉菌中产生麻点的能力很可能由质粒基因所决 定。对于这种质粒的可能来源进行了讨论。

关键词

分类号

# Lethal Zygosis Phenomenon in Streptomyces qingfengmyceticus

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**Abstract**

Plate (or slope) cultures of various derivatives of S.qingfengmyceticus showed s pontaneously developing pocks which appeared frequently during crossing intra- o r inter specifically.Strains which is able to produce pock (Ltz+) or which may b e used as pock producing detector (Ltz-) can be isolated from the center or roun d spores of the pock,respectively.

The results reported here indicate that the occurrence of pock is a lethal e vent of Ltz+ to Ltz- strain,and the lethal rate is up to above 99%.The genetic f actor deter-ming this phenomenon possesses an infectious transfer property,and c an be eliminated by treatment with acridine yellow,high temperature preincubatio n or through the course of protoplast regeneration.Therefore we consider that th e pock formation ability in S.qingfengmyceticus may be determined by plasmid gen e (or genes).The possible origin of such plasmid is discussed.

**Key words**

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