

عنوان مقاله:

Synthesis and In vitro Antibacterial activity of microcarpalide

محل انتشار:

کنفرانس علوم کشاورزی و محیط زیست (سال: 1392)

تعداد صفحات اصل مقاله: 1

نویسنده:

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خلاصه مقاله:

A novel and simple method for the synthesis of microcarpalide and biological evaluation antibacterial activity against *Pseudomonas syringae*, *Xanthomonas citi* and *Pectobacterium carotovorum* are reported. The synthesis of the key intermediates enroute to the natural product is achieved from L-tartaric acid involving the elaboration of g-hydroxy amide derived from tartaric acid and ring opening of an epoxide derived from tartaric acid. The compound showed significant inhibition to growth of bacteria. In vitro antibacterial assay was performed against *X. campestris* pvs, *P. syringae* and *P. carotovorum* by using the disc diffusion method. The results obtained as zone of inhibition (mm) are presented. Tetracycline was used as standard drugs for the assay. The concentration used for the test compounds and that of the standard drugs remains the same. *Pectobacterium carotovorum* is a bacterium of the family Enterobacteriaceae; it formerly was a member of the genus *Erwinia*. The species is a plant pathogen with a diverse host range, including potato, African violet, and other agriculturally and scientifically important plant species. It causes soft rot and blackleg of potato and vegetables, as well as slime flux on many different tree species. *Xanthomonas* can infect a wide variety of species including pepper, rice, citrus, cotton, tomato, broccoli, cabbage, and soybeans. Some types of *Xanthomonas* cause localized leaf spot or leaf streak while others spread systemically and cause black rot or leaf blight disease. *pseudomonas syringae* is responsible for causing diseases on over 180 plant species including fruit trees, vegetable crops and flowers. Pathovars of main economic importance in Europe are the pvs *syringae*, *morsprunorum*, *avii* and *persicae*, causing bacterial canker on sweet and sour cherry, plum, peach and apricot as well as in wild cherry.

کلمات کلیدی:

Synthesis; In vitro Antibacterial activity; microcarpalide; *X. campestris* pvs; *P. syringae*; *P. carotovorum*

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