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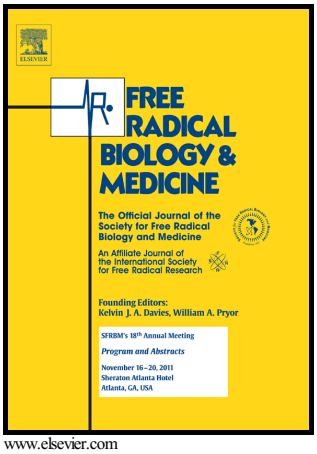

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Hydroxychavicol, a key ingredient of *Piper betle* induces bacterial cell death by DNA damage and inhibition of cell division.

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Abstract

Antibiotic resistance is a global problem and there is an urgent need to augment the arsenal against pathogenic bacteria. The emergence of different drug resistant bacteria is threatening human lives to be pushed towards the pre-antibiotic era. Botanical sources remain a vital source of diverse organic molecules that possess antibacterial property as well as augment existing antibacterial molecules. *Piper betle*, a climber, is widely used in south and south-east Asia whose leaves and nuts are consumed regularly. Hydroxychavicol (HC) isolated from *Piper betle* has been reported to possess antibacterial activity. It is currently not clear how the antibacterial activity of HC is manifested. In this investigation we show HC generates superoxide in *E. coli* cells. Antioxidants protected *E. coli* against HC induced cell death while *gshA* mutant was more