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Short Communication

Antimicrobial activity of compound VG2: Part-III

Amit Nerkar[1]*, **Deepali Gaikwad Ingawale**[1], **Vijay Gaikwad**[1]

[1]*Dept. of Pharmacy, Caymet's Siddhant College of Pharmacy, Pune, Maharashtra, India*

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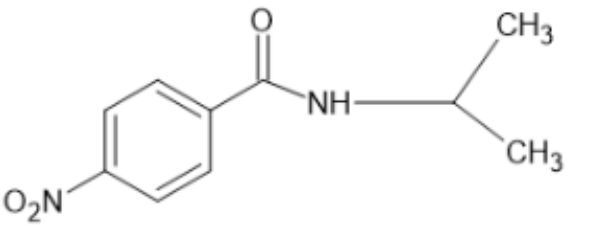
ABSTRACT

In earlier paper, the synthesis of VG2 (benzamide derivative) was reported. The antimicrobial activity of VG2 has been reported in part-II in continuation of part-I synthesis of the VG2. The compound was evaluated at single dose of 20nmoles in the antimicrobial screening. The mixture of microbial culture was evaluated against the VG2. The process involved standard, vehicle and control. The standard being Brand X disinfectant, control being Water and vehicle being ethanol. Test being the compound VG2 dissolved in ethanol, 20nmoles in strength and being evaluated.

1. Introduction

Antimicrobial Agent[1] is defined as agent that prevents the growth or propagation of bacteria or microorganisms including viable spores on inanimate objects.

Synthesis was performed for compounds VG1 and VG2 which are chemically 4-nitro-benazmides. VG2 compound is shown in the figure below which is chemically N-(propan-2-yl)-4-nitrobenzamide. The compounds were confirmed by TLC, FT-IR and ^{1}H-NMR.



4-nitro-*N*-(propan-2-yl)benzamide

VG2

The spectral data and synthesis procedures of VG1 and VG2 had been reported in Part-I of this paper.[2]

We here report the antimicrobial activity of the compound VG2 conducted in our laboratories.

* *Corresponding author*.
E-mail address: dragnerkar@gmail.com (A. Nerkar).

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2. Materials and Methods

2.1. Compound VG2

This is chemically N-(-propan-2-yl)-4-nitrobenzamide and has been synthesized by known literature procedure and published in Part-I of this paper.[1]

2.2. Antimicrobial activity/ screening

Test Solution: 20 nano molar of compound VG2 was dissolved in 3.0 grams of ethanol and stored.

Table 1: Showing zone of inhibition in centimetres (cms) against VG2.

Material	Microbial Load ZOI (cm)
Water	0.0
Vehicle	0.1
X	0.2
VG2	0.6

2.3. Microbial culture

Culture Growth Medium was inoculated with soil water and incubated for the growth of the bacterial load for 72 hrs. Rather than isolating a pure strain of bacteria, microbial culture load was used and inoculated further to give subculture. Further, this culture was used for antimicrobial screening for further testing of VG2. The process involved standard, vehicle and control. The standard being Brand X disinfectant, control being Water and vehicle being ethanol. Test being the compound VG2 dissolved in ethanol, 20nmoles in strength and being evaluated. Zone of inhibition (ZOI) was measured in centimetres.

3. Results and Discussion

As per Table 1, the compound VG2 showed antimicrobial properties as compared to the standard branded antimicrobial (X) and Vehicle used in the test.

4. Conclusion

Thus, VG2 has significant insignificant antimicrobial property as compared to the standard antimicrobial used in the test branded antimicrobial X.

5. Source of Funding

None.

6. Conflict of Interest

None.

References

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Author biography

Amit Nerkar, Professor, Research Head & Advisory Member https://orcid.org/0000-0002-1377-8466

Deepali Gaikwad Ingawale, Assistant Professor of Microbiology

Vijay Gaikwad, Student , Final Year B. Pharm

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