

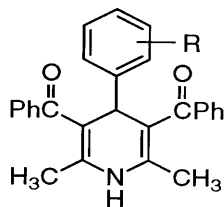
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Enhanced antibacterial effect of erythromycin in the presence of 3,5-dibenzoyl-1,4-dihydropyridines

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Fifteen 3,5-dibenzoyl-1,4-dihydropyridines (BzDHP, **GB1-15**) (nifedipine (NP) analogs) were tested on three different *E. coli* strains. The compounds had relatively high MIC values on these strains. In combination with erythromycin (Er), compounds (**GB1**, **3**, **4**, **6**, **7**, **10**, **12**) reduced MIC values of Er. When the BzDHPs were tested on *E. coli* Gy-1/Ap_{sen} · Er_{res} strain isolated from a clinical specimen, the reduction of MIC values were similar to the previous strains, but not identical. In the polyresistant clinically isolated *E. coli* Gy-1/Ap_{sen} · Er_{res} strain, the MIC values of Er were slightly reduced in the presence of **GB1-7**. Compound **GB12** was the most effective in enhancing the activity of Er, and was selected for plasmid elimination studies. However, **GB12** itself had no antiplasmid effect and did not alter the promethazine induced plasmid elimination.



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| GB1 ; R=H | GB6 ; R=3-CF ₃ | GB11 ; R=2-Cl |
| GB2 ; R=3-NO ₂ | GB7 ; R=4-CF ₃ | GB12 ; R=3-Cl |
| GB3 ; R=2-NO ₂ | GB8 ; R=4-CH ₃ S | GB13 ; R=4-Cl |
| GB4 ; R=3-PhO | GB9 ; R=2-CH ₃ O | GB14 ; R=3-Br |
| GB5 ; R=2-CF ₃ | GB10 ; R=4-CH ₃ O | GB15 ; R=3,4,5-(CH ₃ O) ₃ |