

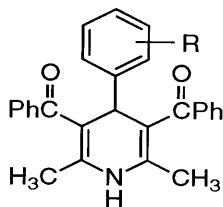
Anticancer Res., 21, 269-274 (2001).

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.



GB1; R=H

GB2; R=3-NO₂

GB3; R=2-NO₂

GB4; R=3-PhO

GB5; R=2-CF₃

GB6; R=3-CF₃

GB7; R=4-CF₃

GB8; R=4-CH₃S

GB9; R=2-CH₃O

GB10; R=4-CH₃O

GB11; R=2-Cl

GB12; R=3-Cl

GB13; R=4-Cl

GB14; R=3-Br

GB15; R=3,4,5-(CH₃O)₃