

EVALUATION OF COMMERCIAL  
PROBIOTICS IN TERMS OF  
ANTIMICROBIAL ACTIVITY AND ABILITY  
TO FERMENT PREBIOTIC

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## ABSTRACT

Commercial probiotic products contained live microorganisms that have established their efficacy as dietary adjuncts providing benefits to consumers, but the selection of products before incorporation in diet requires close scrutiny in the form of *in vivo* as well as *in vitro* tests. The present study was undertaken to check different *in vitro* characteristics of three commercial probiotic products (brand Y, V and S). The characteristics studied include inhibitory activity against selected pathogens by using double layer assay method; effect of *E.coli* growth in skim milk together with commercial probiotic strains; ability to ferment inulin and their growth level on MRS-inulin. The results show that all entries commercial probiotic products were able to inhibit *Bacillus subtilis*, *Escherichia coli*, *Staphylococcus aureus*, and *Micrococcus luteus*. The inhibition effect determine by measuring the inhibitory zone on the plate. But Y and V show very strong inhibit effect on these pathogens. *E.coli* growth on skim milk inhibits also by these Y and V, but the inhibition actions take after eight hours incubation. These Y and V also show good fermentation effect on inulin compare to S brand product on MRS-inulin agar plate. The ability to ferment inulin confirm by colonies growth surround yellow zone against a purple background. As conclusion, among the three commercial probiotic products, Y and V produced better health benefits to consumer. This study represents or helps the consumers to select right choice of fermented milk products by target on better antimicrobial activity and prebiotic characteristic.

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