











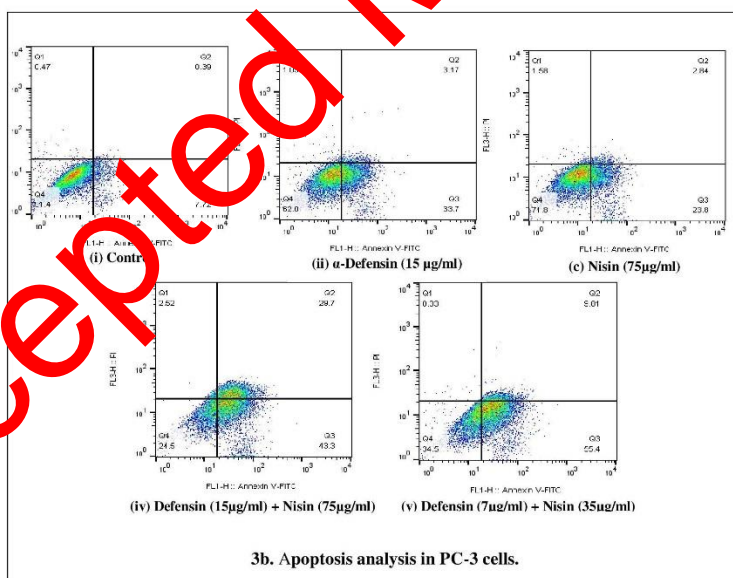
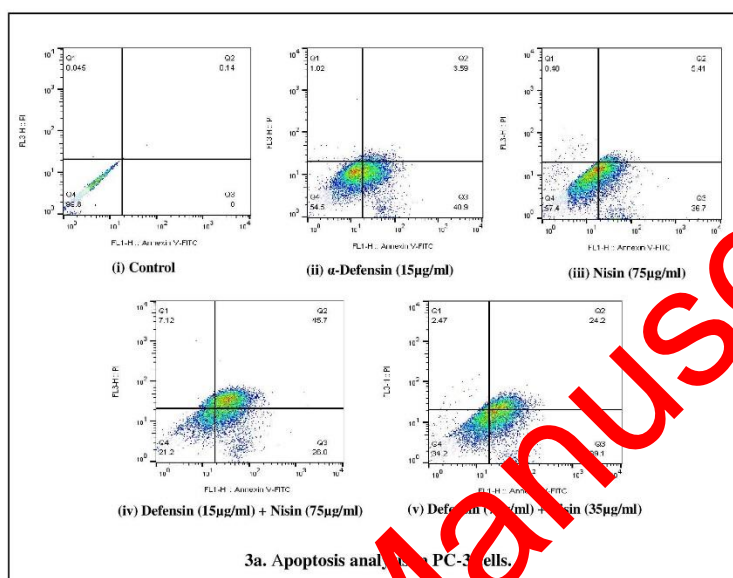








assay The statistical analysis was performed using Student's t-test for samples and differences were considered significant when  $P < 0.05$ . Co- treatment with purified  $\alpha$ -defensin and nisin shows a remarkable synergistic effect on cancer cell lines. The effect of  $\alpha$ - defensin – nisin (15 -75  $\mu\text{g/ml}$  and 7 - 35  $\mu\text{g/ml}$ ) on HCT-116 and PC-3 (2c) cell viability is represented in the graph. Cells were treated for 24 hours and cell viability was measured by the MTT assay. The statistical analysis was performed using Student's t-test for samples and differences were considered significant when  $P < 0.05$ .



**Fig 3.** Apoptosis analysis in PC-3 (3a). Flow cytometric analyses of the prostate cancer cells treated with best concentration of control (i), purified  $\alpha$ -defensin (ii), nisin (iii), best effective dose in co-treatment (iv) and best half effective dose concentration (v). The cells were stained with annexin V-FITC and PI and subjected to flow cytometry. The distribution of the cells is presented as the percentage of total cells counted. Apoptosis analysis in HCT-116 (3b). Flow cytometric analyses of colon cancer cells treated with best concentration of control (i), purified  $\alpha$ -defensin (ii), nisin (iii), best effective dose in co-treatment (iv) and best half effective dose concentration (v). The cells were stained with annexin V-FITC and PI and subjected to flow cytometry. The distribution of the cells is presented as the percentage of total cells counted. The statistical analysis was performed using one-way ANOVA test for samples and differences were considered significant when  $P < 0.05$ .