

## Effect of extract of *Bacillus megaterium* 9554 on oral cancer cell line SCC131

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**ABSTRACT:**

A microbe, identified as *Bacillus megaterium* 9544 was isolated from the soil sample collected from Manali, Himachal Pradesh. The bacterial broth extract had the presence of compound(s) that induced apoptotic like features on oral cancer cells, like morphological changes, condensation of nucleus and detachment of cancer cells from the surface of culture vessel. The extract did not cause any kind of changes in mitochondrial membrane potential as evidenced from flow cytometric analysis and did not cause fragmentation of nuclear DNA. This particular compound(s) which was present in the bacterial extract seemed to induce only a weak apoptotic signal that did not lead to complete progression of apoptosis.

**Keywords:**

Apoptosis, Flow cytometry, *Bacillus*, Cancer.