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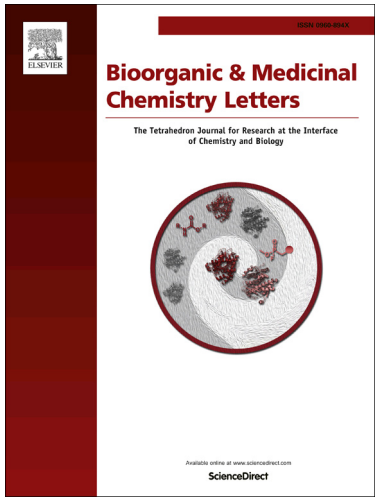

Synthesis and evaluation of benzosuberone embedded with 1, 3, 4-oxadiazole, 1, 3, 4-thiadiazole and 1, 2, 4-triazole moieties as new potential anti proliferative agents

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Synthesis and evaluation of benzosuberone embedded with 1, 3, 4-oxadiazole, 1, 3, 4-thiadiazole and 1, 2, 4-triazole moieties as new potential anti proliferative agents

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ABSTRACT

As an aspect of our ongoing research in search of new anti proliferative agents, a series of novel analogues of benzosuberone embedded with 1, 3, 4-oxadiazole, 1, 3, 4-thiadiazole and 1, 2, 4-triazole moieties were synthesized in excellent yields (82-93%). All the newly synthesized compounds were characterized by ^{1}HNMR, ^{13}CNMR, ESI/LC-MS, HRMS and evaluated for their *in vitro* anti proliferative activity against four human cancer cell lines (cervical, breast, pancreatic and alveolar). Among the synthesized compounds, **4b**, **6a**, **7d** and **7l** showed potent anti proliferative activity with GI_{50} values range of 0.079-0.957 μM against four human cancer cell lines. However, it was revealed that the compound **7d** have shown very close GI_{50} value 0.079 μM as compared with positive control of colchicine against cervical cancer cell line.
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