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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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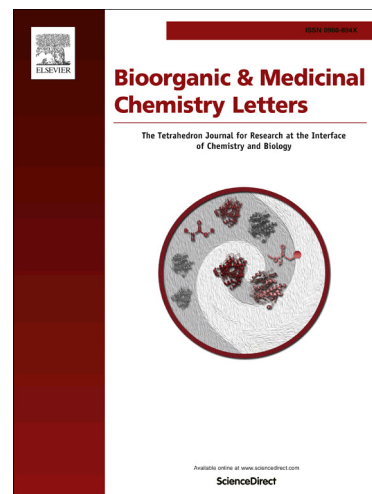
PII: S0960-894X(15)00238-3  
DOI: <http://dx.doi.org/10.1016/j.bmcl.2015.03.032>  
Reference: BMCL 22520

To appear in: *Bioorganic & Medicinal Chemistry Letters*

Received Date: 27 October 2014  
Revised Date: 3 March 2015  
Accepted Date: 13 March 2015

Please cite this article as: Yadagiri, B., Gurralla, S., Bantu, R., Nagarapu, L., Polepalli, S., Srujana, G., Jain, N., 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, *Bioorganic & Medicinal Chemistry Letters* (2015), doi: <http://dx.doi.org/10.1016/j.bmcl.2015.03.032>

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Bioorganic & Medicinal Chemistry Letters  
journal homepage: www.elsevier.com

## 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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### ARTICLE INFO

#### Article history:

Received

Revised

Accepted

Available online

#### Keywords:

Benzosuberone

1, 3, 4-oxadiazole

1, 3, 4-thiadiazole

1, 2, 4-triazole

Anti-proliferative

Cell lines

### 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 <sup>1</sup>HNMR, <sup>13</sup>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<sub>50</sub> 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<sub>50</sub> value 0.079 μM as compared with positive control of colchicine against cervical cancer cell line.

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