

The Synthesis of Ipriflavone Analogues as Anti-osteoclastogenesis Agents

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Abstract: The inflammatory cytokines play a major role in osteoclastogenesis and lead to the bone resorption that is frequently associated with osteoporosis. Ipriflavone has been reported possessed anti-inflammatory activity. The ipriflavone analogues were synthesized and investigated the anti-osteoclastogenesis activity. The series of compounds was subjected to inhibit nuclear factor kappa B ligand (RANKL) plus macrophage colony stimulating factor induced osteoclastic differentiation from bone marrow stromal cells and RAW264.7 macrophage cells. The ipriflavone analogues, 7-fluoroisoflavones, were shown benefited bone health by attenuating bone loss through inhibiting the osteoclast.