YC-1 is a guanylyl cyclase activator and HIF-1α inhibitor. YC-1 displays anti-fibrotic, anticancer chemotherapeutic, anti-atherosclerotic, and neuroprotective activities. In vitro, YC-1 decreases secretion of sENG and sFlt-1, reversing endothelial dysfunction. In hepatic stellate cells, this compound decreases cell viability and increases apoptosis, potentially through suppressing expression of αSMA. In canine lymphoma cells, YC-1 inhibits cell proliferation; in similar animal models, it induces tumor regression. In other animal models, YC-1 decreases ox-LDL-induced cholesterol accumulation. Additionally, this compound suppresses neuronal death induced by amyloid-β (Aβ) peptides.

References


