Inhibitors, Agonists, Screening Libraries
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Data Sheet

Product Name: Lycorine (hydrochloride)
Cat. No.: HY-N0289
CAS No.: 2188-68-3
Molecular Formula: \( \text{C}_{16}\text{H}_{18}\text{ClNO}_4 \)
Molecular Weight: 323.77
Target: Autophagy
Solubility: DMSO: ≥ 31 mg/mL

BIOLOGICAL ACTIVITY:
Lycorine (hydrochloride) is VE-cadherin inhibitor, and has IC50 of 1.2μM in Hey1B cell.
IC50: 1.2μM (Hey1B cell)[2]

In vitro: Lycorine (hydrochloride) executed an anti-melanoma vasculogenic effect by inhibiting VE-cadherin gene expression in C8161 cells and caused a decrease in cell surface exposure of VE-cadherin protein. Consistently, LH significantly suppressed VE-cadherin gene promoter activity. [1] Lycorine (hydrochloride) effectively inhibited mitotic proliferation of Hey1B cells (half maximal inhibitory concentration = 1.2 μM) with very low toxicity, resulting in cell cycle arrest at the G2/M transition through enhanced expression of the cell cycle inhibitor p21 and marked down-regulation of cyclin D3 expression. Moreover, LH suppressed both the formation of capillary-like tubes by Hey1B cells cultured in vitro.[2]

In vivo: Lycorine effectively suppressed C8161 cell-dominant tumor formation and generation of tumor blood vessels in vivo with low toxicity.[1] Lycorine (hydrochloride) suppressed the formation of the ovarian cancer cell-dominant neovascularization in vivo when administered to Hey1B-xenotransplanted mice, suggest that LH selectively inhibits ovarian cancer cell proliferation and neovascularization and is a potential drug candidate for anti-ovarian cancer therapy.[2]

PROTOCOL (Extracted from published papers and Only for reference)
cell assay: [2] C8161 cells were incubated in DMEM medium containing 0.5% fetal bovine serum in the absence or presence of the indicated Lycorine (hydrochloride) concentrations for 24 h. Next, 200 μl viable C8161 cells (1.5 × 105/ml) was added to each well of 48-well plates containing 0.15 ml Matrigel matrix. Plates were incubated at 37°C in 5% CO2 for 16 h. Tubes were stained with Wright-Giemsa solution and observed using an OLYMPUS FSX-100 microscope.[1]table Hey1B cells were pre-treated with LH in 0.5% FBS at the concentrations indicated for 24 h, counted by trypan blue, and resuspended in RPMI 1640 at a density of 1.5 × 105/mL. These cells were then mixed with the indicated concentrations of Lycorine (hydrochloride) (v:v = 120 μL:120 μL) and transferred to each well of a 48-well plate containing 0.15 mL Matrigel matrix (without supplement of growth factors). After incubation at 37 °C, 5% CO2 for 16 h, the tubes were stained with Wright–Giemsa solution and photographed by OLYMPUS FSX-100 microscope.[2]

References:
Caution: Product has not been fully validated for medical applications. For research use only.

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