

Product Data Sheet

Product Name: TLSC702

Cat. No.: GC81594

Chemical Properties

Cas. No. 748786-57-4

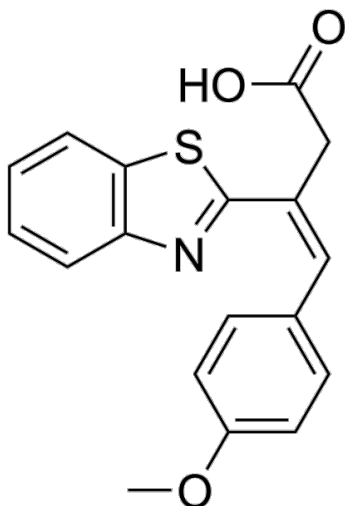
Formula $C_{18}H_{15}NO_3S$ M.Wt 325.38

Solubility DMSO: 50 mg/mL (153.67 mM; Need ultrasonic) Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

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

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TLSC702 is a human glyoxalase I (hGLO I) inhibitor with an IC_{50} of 2.0 μM . TLSC702 inhibits the activity of human glyoxalase I, thereby leading to the accumulation of methylglyoxal and its derived advanced glycation end products. TLSC702 inhibits tumor cell proliferation, induces apoptotic morphological changes, internucleosomal DNA fragmentation and PARP cleavage in tumor cells. TLSC702 can be used in research related to leukemia and lung cancer [1].

In Vitro, TLSC702 (24 h) suppresses the proliferation of human myeloid leukemia HL-60 cells in a dose-dependent manner with an EC_{50} of approximately 400 μM [1]. TLSC702 (100-1000 μM ; 24 h) induces apoptosis in human myeloid leukemia HL-60 cells in a dose-dependent manner, as evidenced by morphological changes, DNA ladder formation, and PARP cleavage, with necrotic cell death also occurring at 1000 μM [1]. TLSC702 (24 h (both cell lines); 24, 48, 72 h (NCI-H522 cells only)) preferentially suppresses the proliferation of GLO I-high human lung cancer NCI-H522 cells compared to GLO I-low human lung cancer NCI-H460 cells, with a time-dependent antiproliferative effect on NCI-H522 cells that yields EC_{50} values of >300 μM (24 h), 202 μM (48 h), and 145 μM (72 h)[1]. TLSC702 (300 μM ; 24, 48, 72 h) induces accumulation of argpyrimidine adducts in human lung cancer NCI-H522 cells[1].

References:

[1]. Takasawa R, et al. TLSC702, a Novel Inhibitor of Human Glyoxalase I, Induces Apoptosis in Tumor Cells. Biol Pharm Bull. 2016;39(5):869-873.

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