

Product Data Sheet

Product Name: NSC 689534

Cat. No.: GC73702

Chemical Properties

Cas. No. 907958-80-9

Formula $C_{19}H_{18}N_6S$

M.Wt 362.45

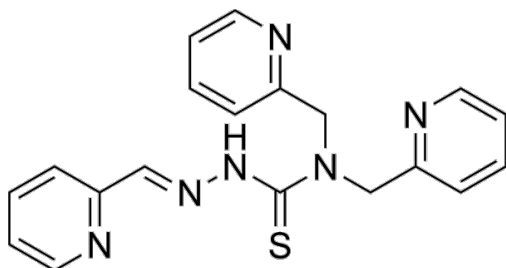
Solubility

Storage $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

NSC 689534 can form copper chelate with Cu^{2+} . NSC 689534/ Cu^{2+} complex is a potent oxidative stress inducer, and has antitumor activity.

NSC 689534/ Cu^{2+} complex (48 h) inhibits cell viability of HL60 and PC3 cell with IC_{50} s of 0.2 and 0.4 μM respectively, which is about 4 times more potent than NSC 689534 alone[1]. NSC 689534/ Cu^{2+} complex (2.5 μM , 24 h) induces oxidative stress and depletes GSH in PC3 cells, whereas with no effect by NSC 689534 alone[1]. NSC 689534/ Cu^{2+} complex (2.5 μM , 24 h) induces

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macroautophagy (indicated by LC3 accumulation into large autophagosomes) and an ER-stress response (upregulation of GRP78 and CHOP) in PC3 cells[1].

NSC 689534/Cu²⁺ complex (3 mg/kg, i.p., once or twice a day for 5 days) inhibits tumor growth in HL60 xenograft model, whereas with no statistical significance by NSC 689534 alone[1].

References:

[1]. Chad N Hancock, et al. A copper chelate of thiosemicarbazone NSC 689534 induces oxidative/ER stress and inhibits tumor growth in vitro and in vivo. Free Radic Biol Med. 2011 Jan 1;50(1):110-21.

[2]. Hancock CN, et al. A copper chelate of thiosemicarbazone NSC 689534 induces oxidative/ER stress and inhibits tumor growth in vitro and in vivo. Free Radic Biol Med. 2011 Jan 1;50(1):110-21.

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