

Product Data Sheet

Product Name: Complex 3

Cat. No.: GC49454

Chemical Properties

Cas. No. 2480150-28-3

SMILES [Br-][Cu+2]1([S-]2)[N](N=C2SC)=C(C3=CC=CC=[N]3[Cu+][N]4=CC=CC=C4C(C5=CC=CC=[N]56)=[N](N=C7SC)[Cu+2]6([S-]7)[Br-])[Br-])C8=CC=CC=[N]81

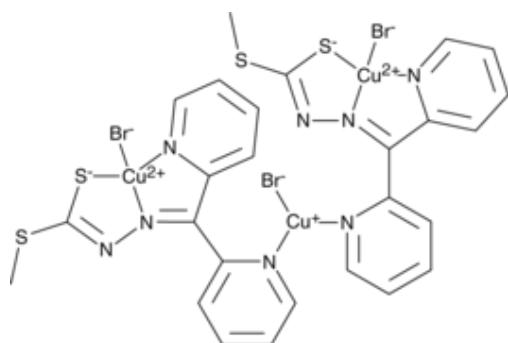
Formula C₂₆H₂₂Br₃Cu₃N₈S₄ M.Wt 1005.1

Solubility DMSO: 10 mg/ml Storage -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

Complex 3 is a fluorescent dithiocarbazate-copper complex with anticancer activity.¹ It localizes to mitochondria and displays excitation/emission maxima of 455-495/535 nm, respectively. Complex 3 inhibits the growth of BxPC-3, AsPC-1, PANC-1, and WI38 pancreatic cancer cells (IC₅₀s = 0.74, 0.41, 0.62, and 2.06 μM, respectively). It induces lipid peroxidation and mitochondrial rupture and shrinkage in AsPC-1 cells, effects that can be reduced by the ferroptosis inhibitor liproxstatin-1. Complex 3 also induces mitochondrial apoptosis and cytokine-cytokine receptor interaction dysfunction in the same cells. *In vivo*, complex 3 (1.5 and 3 mg/kg) reduces tumor volume and intratumor apoptosis in an AsPC-1 mouse xenograft model.

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

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1. Guo, Y., Chen, M., Li, S., et al. Dithiocarbazate-copper complexes for bioimaging and treatment of pancreatic cancer. *J. Med. Chem.* 64(9):5485-5499 (2021)

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