

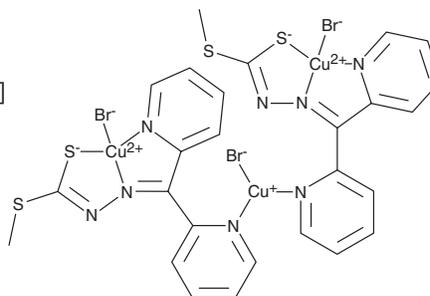
# PRODUCT INFORMATION



## Complex 3

Item No. 34282

**CAS Registry No.:** 2480150-28-3  
**Formal Name:** tribromobis[μ-[methyl N-[di(2-pyridinyl-κN)methylene]carbonodithiohydrazonato-κN,κS']] tri-copper  
**MF:** C<sub>26</sub>H<sub>22</sub>Br<sub>3</sub>Cu<sub>3</sub>N<sub>8</sub>S<sub>4</sub>  
**FW:** 1,005.1  
**Purity:** ≥90%  
**Ex./Em. Max:** 455-495/535 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Complex 3 is supplied as a crystalline solid. A stock solution may be made by dissolving the complex 3 in the solvent of choice, which should be purged with an inert gas. Complex 3 is soluble in the organic solvent DMSO at a concentration of approximately 10 mg/ml.

### Description

Complex 3 is a fluorescent dithiocarbamate-copper complex with anticancer activity.<sup>1</sup> 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 (IC<sub>50</sub>s = 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 (Item No. 17730). 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.

### Reference

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

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/12/2021

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM