

Elesclomol, Copper chelator/Cuproptosis inducer

Catalog	Unit
TBI4238-5MG	5 mg
TBI4238-25MG	25 mg

Product Details

Formal Name: N'1,N'3-Dimethyl-N'1,N'3-di(phenylcarbonothioyl)malonohydrazide

Alternate Names: STA-4783; GSK842879A

Molecular Formula: C₁₉H₂₀N₄O₂S₂

Formula Weight: 400.50

CAS Number: 488832-69-5

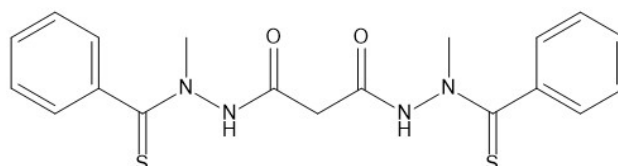
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 50 mg/ml).

Storage: -20°C

Stability: ≥ 1 year.



Applications

Copper chelator/Cuproptosis inducer

Functions

Elesclomol induced oxidative stress in cancer cells via rapid generation of reactive oxygen species. It preferentially binds copper ions outside the cell and selectively transports inside the mitochondria with subsequent reactive oxygen species generation leading to apoptosis. Elesclomol can restore copper homeostasis in models of copper deficiency and disorders of copper metabolism. Copper-induced cell death (Cuproptosis) caused by Elesclomol is now believed to occur via direct binding of copper to lipoylated components of the tricarboxylic acid cycle causing protein aggregation and subsequent iron-sulfur protein loss leading to proteotoxic stress and cell death.

Application Procedures

First dissolved in DMSO (up to 50 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 1 month.

For research use only.