

PRODUCT INFORMATION



JG-98

Item No. 38337

CAS Registry No.: 1456551-16-8
Formal Name: 2-[(Z)-[(5E)-5-(6-chloro-3-methyl-2(3H)-benzothiazolyliidene)-3-ethyl-4-oxo-2-thiazolidinylidene]methyl]-3-(phenylmethyl)-thiazolium, monochloride

MF: C₂₄H₂₁ClN₃OS₃ • Cl

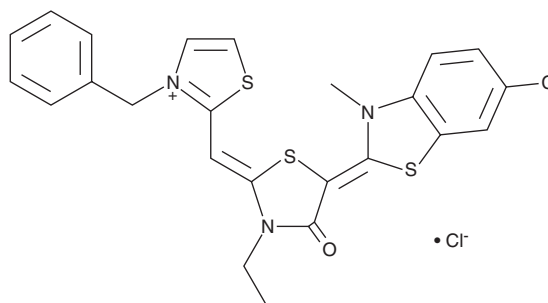
FW: 534.5

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

JG-98 is supplied as a solid. A stock solution may be made by dissolving the JG-98 in the solvent of choice, which should be purged with an inert gas. JG-98 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of JG-98 in these solvents is approximately 10, 20, and 3 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of JG-98 can be prepared by directly dissolving the solid in aqueous buffers. JG-98 is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

JG-98 is an inhibitor of the protein-protein interaction between heat shock protein 70 (Hsp70) and Bcl-2-associated athanogene 3 (BAG-3; IC₅₀ = 1.6 μM).¹ It reduces the proliferation of MDA-MB-231 and MCF-7 breast cancer cells (EC₅₀s = 0.4 and 0.7 μM, respectively) and 22 other cancer cell lines (EC₅₀s = 0.3-4 μM).^{1,2} It is toxic to mouse embryonic fibroblasts (MEFs; EC₅₀ = 22 μM).² *In vivo*, JG-98 (3 mg/kg every two days) reduces tumor growth in MCF-7 breast cancer and HeLa cervical cancer mouse xenograft models.¹

References

1. Li, X., Colvin, T., Rauch, J.N., *et al.* Validation of the Hsp70-Bag3 protein-protein interaction as a potential therapeutic target in cancer. *Mol. Cancer Ther.* **14**(3), 642-648 (2015).
2. Li, X., Srinivasan, S.R., Connarn, J., *et al.* Analogs of the allosteric heat shock protein 70 (Hsp70) inhibitor, MKT-077, as anti-cancer agents. *ACS Med. Chem. Lett.* **4**(11), (2013).

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, 10/12/2023

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