

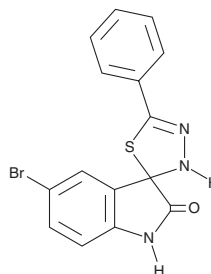
# PRODUCT INFORMATION



## Lipofermata

Item No. 25869

CAS Registry No.: 297180-15-5  
Formal Name: 5-bromo-5'-phenyl-spiro[3H-indole-3,2'(3'H)-[1,3,4]thiadiazol]-2(1H)-one  
MF:  $C_{15}H_{10}BrN_3OS$   
FW: 360.2  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 226, 306 nm  
Supplied as: A crystalline solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



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

### Laboratory Procedures

Lipofermata is supplied as a crystalline solid. A stock solution may be made by dissolving the lipofermata in the solvent of choice. Lipofermata is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of lipofermata in these solvents is approximately 1, 25, and 30 mg/ml, respectively.

Lipofermata is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lipofermata should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Lipofermata has a solubility of approximately 0.09 mg/ml in a 1:10 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Lipofermata is an inhibitor of fatty acid transport ( $IC_{50} = 4.84 \mu M$  in Caco-2 cells).<sup>1</sup> It inhibits uptake of long- and very long-chain, but not medium-chain, fatty acids in mmC2C12, rnINS-1E, Caco-2, and HepG2 cells ( $IC_{50}s = 3-6 \mu M$ ).<sup>2</sup> Lipofermata inhibits induction of BiP and CHOP, apoptosis, and lipid droplet accumulation, as well as reduces production of reactive oxygen species (ROS) and reverses decreases in glutathione (GSH) levels induced by palmitate (Item No. 10010279) in HepG2 and INS-1E cells. *In vivo*, lipofermata (500 mg/kg) inhibits absorption of  $^{13}C$ -oleate in mice.

### References

1. Sandoval, A., Chokshi, A., Jesch, E.D., *et al.* Identification and characterization of small compound inhibitors of human FATP2. *Biochem. Pharmacol.* **79**(7), 990-999 (2010).
2. Ahowesso, C., Black, P.N., Saini, N., *et al.* Chemical inhibition of fatty acid absorption and cellular uptake limits lipotoxic cell death. *Biochem. Pharmacol.* **98**(1), 167-181 (2015).

#### 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, 02/16/2024

#### 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