

Product Data Sheet

Product Name: M464
Cat. No.: GC81568

Chemical Properties

Cas. No.

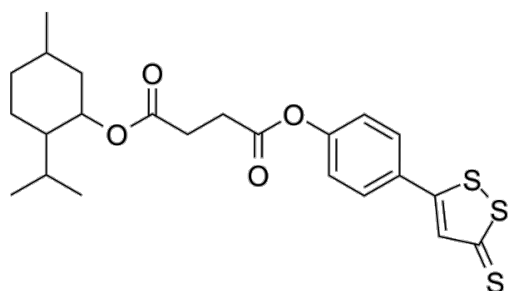
Formula $C_{23}H_{28}O_4S_3$ M.Wt 464.66

Solubility Storage Store at -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

M464, a non-steroidal anti-inflammatory compound, is a potent and orally active NLRP3 inflammasome inhibitor. M464 inhibits pyroptosis and hinders the activation of downstream Caspase-1 expression and the release of IL-1 β by impeding ASC oligomerisation and curtailing ROS production. M464 exhibits protective effects against acute lung and liver injury in mice. M464 can be used for the research of NLRP3-related inflammatory diseases [1].

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

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In Vivo, M464 (15, 30, 60 mg/kg; i.g.; single dose; 1 hour before LPS injection) mitigates LPS - induced acute lung injury in mice by inhibiting NLRP3 inflammasome activation^[1]. M464 (15, 30, 60 mg/kg; i.g.; single dose; 1 hour before LPS injection) mitigates LPS and D-GalN-induced acute liver injury in mice by inhibiting NLRP3 inflammasome activation^[1].

In Vitro, M464 (3-12 μ M) inhibits the expression of marker proteins associated with NLRP3 inflammasome activation (IL-1 β and Caspase-1), and restrains the production of intracellular ROS and the formation of ASC oligomers in J774A.1 and THP-1 cells^[1]. M464 (3-12 μ M; 1 h) inhibits pyroptosis in macrophages triggered by the NLRP3 inflammasome stimulator in J774A.1 and THP-1 cells^[1].

References:

[1]. Wang W, et al. M464 inhibits activation of NLRP3 inflammasome and inflammatory response in mice. Sci Rep. 2025;15(1):33878. Published 2025 Sep 30.

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