

Product Data Sheet

Product Name: Satratoxin G

Cat. No.: GC46218

Chemical Properties

Cas. No. 53126-63-9

SMILES O=C(/C=C\C=C\C1(C(O)C)C(O)C2(C3O2)CCO1)OC4CC(C56OC6)OC(C=C(C)CC7)C7(COC3=O)C45C

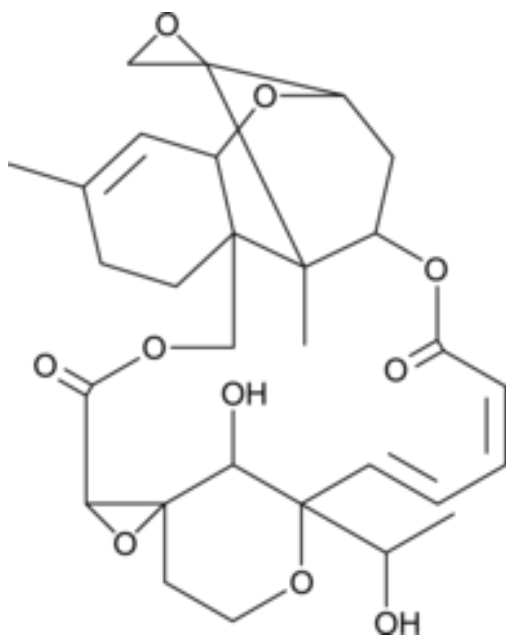
Formula C₂₉H₃₆O₁₀ M.Wt 544.6

Solubility Dichloromethane: soluble, DMSO: soluble, Ethanol: soluble
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

Satratoxin G is a macrocyclic trichothecene mycotoxin that has been found in *S. chartarum*.^{1,2} It induces cleavage of caspase-3 and poly(ADP-ribose) polymerase (PARP) in HL-60 cells when used

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

at a concentration of 40 nM and is cytotoxic to HepG2, Hep-2, Caco-2, A204, U937, and Jurkat cells (IC₅₀s = 2.2-9.7 ng/ml).^{3,4} Intranasal administration of satratoxin G (500 µg/kg) induces apoptosis of olfactory sensory neurons in olfactory epithelium and ethmoid turbinate expression of the genes encoding IL-1α, IL-1β, IL-6, TNF-α, and MIP-2 in mice.² Satratoxin G induces lethality in 4 week-old male mice (LD₅₀ = 1.23 mg/kg, i.p.).¹

[1. Yoshizawa, T., Ohtsubo, K., Sasaki, T., et al. Acute toxicities of satratoxins G and H in mice--a histopathological observation with special reference to the liver injury caused by satratoxin G. Proc. Jpn. Assoc. Mycotoxicol. 23, 53-57 (1986).|2. Islam, Z., Harkema, J.R., and Pestka, J.J. Satratoxin G from the black mold *Stachybotrys chartarum* evokes olfactory sensory neuron loss and inflammation in the murine nose and brain. Environ. Health Perspect. 114(7), 1099-1107 (2006).|3. Nagase, M., Shiota, T., Tsushima, A., et al. Molecular mechanism of satratoxin-induced apoptosis in HL-60 cells: Activation of caspase-8 and caspase-9 is involved in activation of caspase-3. Immunol. Lett. 84(1), 23-27 (2002).|4. Nielsen, C., Casteel, M., Didier, A., et al. Trichothecene-induced cytotoxicity on human cell lines. Mycotoxin Res. 25(2), 77-84 (2009).

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA