

Product Data Sheet

Product Name: Mitotane (Lsodren)

Cat. No.: GC16976

Chemical Properties

Cas. No. 53-19-0

Chemical Name 1-chloro-2-[2,2-dichloro-1-(4-chlorophenyl)ethyl]benzene

SMILES C1=CC=C(C(=C1)C(C2=CC=C(C=C2)Cl)C(Cl)Cl)Cl

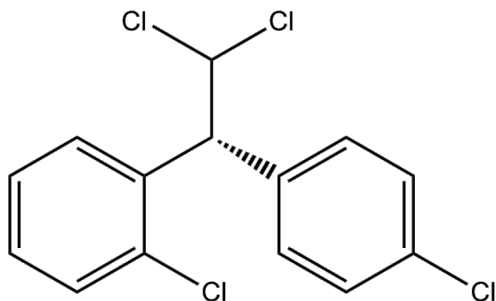
Formula $C_{14}H_{10}Cl_4$ M.Wt 320.04

Solubility $\geq 12.5\text{mg/mL}$ in DMSO 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

Mitotane (2,4'-DDD), an isomer of DDD and derivative of DDT, is an antineoplastic medication used in the treatment of adrenocortical carcinoma. IC₅₀ value: Target: Mitotane alters steroid peripheral metabolism, directly suppresses the adrenal cortex and alters cortisone metabolism leading to hypocortisolism. Side effects as reported by Schteinberg et al. include anorexia and nausea (88%), diarrhea (38%), vomiting (23%), decreased memory and ability to concentrate (50%), rash (23%),

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

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gynecomastia (50%), arthralgia (19%), and leukopenia (7%).

References:

- [1]. Gentilin E, Tagliati F, Terzolo M, Mitotane reduces human and mouse ACTH-secreting pituitary cell viability and function. *J Endocrinol*. 2013 Jul 29;218(3):275-285.
- [2]. Lehmann TP, Wrzesiński T, Jagodziński PP. The effect of mitotane on viability, steroidogenesis and gene expression in NCI H295R adrenocortical cells. *Mol Med Rep*. 2013 Mar;7(3):893-900.
- [3]. Takeshita A, Igarashi-Migitaka J, Koibuchi N, Mitotane induces CYP3A4 expression via activation of the steroid and xenobiotic receptor. *J Endocrinol*. 2013 Feb 15;216(3):297-305.
- [4]. Ederhy S, Cohen A, Dufaitre G, No evidence for relevant QT interval prolongation in mitotane-treated patients with adrenocortical carcinoma. *J Endocrinol Invest*. 2012 Nov;35(10):911-4.
- [5]. Alexandraki KI, Kaltsas GA, le Roux CW, Assessment of serum-free cortisol levels in patients with adrenocortical carcinoma treated with mitotane: a pilot study. *Clin Endocrinol (Oxf)*. 2010 Mar;72(3):305-11.

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