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Produktinformation



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION



Mitotane

Item No. 18651

CAS Registry No.: 53-19-0
Formal Name: 1-chloro-2-[2,2-dichloro-1-(4-chlorophenyl)ethyl]-benzene
Synonyms: o,p'-DDD, NSC 38721
MF: C₁₄H₁₀Cl₄
FW: 320.0
Purity: ≥98%
UV/Vis.: λ_{max}: 229 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Mitotane is supplied as a crystalline solid. A stock solution may be made by dissolving the mitotane in the solvent of choice, which should be purged with an inert gas. Mitotane is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of mitotane in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Mitotane is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, mitotane should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Mitotane has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Mitotane is an inhibitor of steroidogenesis that suppresses the growth of adrenocortical cells.^{1,2} It blocks the expression of several genes that encode proteins involved in steroidogenesis and disrupts mitochondrial respiratory chain activity in human adrenocortical cells.^{1,2} Mitotane has anti-neoplastic actions, alone or in combination with other compounds, and suppresses cortisol synthesis, although it also has significant toxicity in the gastrointestinal tract and nervous system.^{3,4} It is effective against adrenocortical carcinoma and Cushing's Syndrome in clinical trials.^{4,5}

References

1. Hescot, S., Slama, A., Lombcs, A., *et al.* Mitotane alters mitochondrial respiratory chain activity by inducing cytochrome c oxidase defect in human adrenocortical cells. *Endocr. -Relat. Cancer* **20(3)**, 371-381 (2013).
2. Daniel, E. and Newell-Price, J.D.C. Therapy of endocrine disease: Steroidogenesis enzyme inhibitors in Cushing's syndrome. *Eur. J. Endocrinol.* **172(6)**, R263-R280 (2015).
3. Veytsman, I., Nieman, L., and Fojo, T. Management of endocrine manifestations and the use of mitotane as a chemotherapeutic agent for adrenocortical carcinoma. *J. Clin. Oncol.* **27(27)**, 4619-4629 (2009).
4. Kerkhofs, T.M.A., Ettaieb, M.H.T., Hermsen, I.G.C., *et al.* Developing treatment for adrenocortical carcinoma. *Endocr. -Relat. Cancer* **22(6)**, R325-R328 (2015).
5. Kamenickz, P., Droumaquet, C., Salenave, S., *et al.* Mitotane, metyrapone, and ketoconazole combination therapy as an alternative to rescue adrenalectomy for severe ACTH-dependent Cushing's syndrome. *J. Clin. Endocrinol. Metab.* **96(9)**, 2796-2804 (2011).

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.

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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