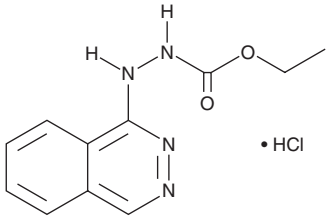
PRODUCT INFORMATION

Todralazine (hydrochloride)

Item No. 20893

CAS Registry No.: 3778-76-5
Formal Name: 2-(1-phthalazinyl)-hydrazinecarboxylic acid, ethyl ester, monohydrochloride
Synonyms: Apirachol, Binazine, Ecarazine
MF: $C_{11}H_{12}N_4O_2 \bullet HCl$
FW: 268.7
Purity: ≥98%
UV/Vis.: λ_{max}: 210, 303, 315 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Todralazine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the todralazine (hydrochloride) in the solvent of choice. Todralazine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of todralazine (hydrochloride) in these solvents is approximately 1, 10, and 5 mg/ml, respectively.

Todralazine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, todralazine (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Todralazine (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Todralazine (hydrochloride) is a β_2-adrenergic receptor antagonist with peripheral vasodilator activity.[1,2] Administration of todralazine (5 µM) to pre-larval zebrafish led to hematopoietic cell expansion and protection from ionizing radiation.[2] It inhibited histone acetylation *in vitro* and, long-term (4 months), but not short-term (1 month), treatment in mice (3 mg/day) impaired hepatocyte histone acetylation and liver regeneration.[3]

References

1. Falase, A.O. and Salako, L.A. β-Adrenoceptor blockers in the treatment of hypertension. *Afr. J. Med. Med. Sci.* **8(1-2)**, 13/18 (1979).
2. Dimri, M., Joshi, J., Chakrabarti, R., *et al.* Todralazine protects zebrafish from lethal effects of ionizing radiation: Role of hematopoietic cell expansion. *Zebrafish* **12(1)**, 33-47 (2015).
3. Murata, K., Hamada, M., Sugimoto, K., *et al.* A novel mechanism for drug-induced liver failure: Inhibition of histone acetylation by hydralazine derivatives. *J. Hepatol.* **46(2)**, 322-329 (2007).

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