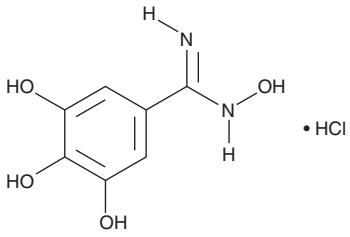
PRODUCT INFORMATION

Trimidox (hydrochloride)

Item No. 10011124

CAS Registry No.:	95933-75-8
Formal Name:	N,3,4,5-tetrahydroxy-benzenecarboximidamide, monohydrochloride
Synonym:	CF 233
MF:	$C_7H_8N_2O_4$ • HCl
FW:	220.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 220, 280 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

Trimidox (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the trimidox (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Trimidox (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of trimidox (hydrochloride) in these solvents is approximately 0.25, 2, and 1 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of trimidox (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of trimidox (hydrochloride) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ribonucleotide reductase, the rate-limiting enzyme for *de novo* DNA synthesis, is a common target for chemotherapy. Its increased activity in cancer cells is associated with malignant transformation and proliferation.[1] Trimidox is a specific ribonucleotide reductase inhibitor that reduces levels of dGTP and dCTP in HL-60 cells, inducing apoptosis *via* activation of caspases without altering the cell cycle distribution.[1,2] Trimidox inhibits growth of human promyelocytic leukemia HL-60 cells with an IC_{50} value of 35 µM.[1]

References

1. Szekeres, T., Fritizer, M., Strobl, H., *et al.* Synergistic growth inhibitory and differentiating effects of trimidox and tiazofurin in human promyelocytic leukemia HL-60 cells. *Blood* **84(12)**, 4316-4321 (1994).
2. Kanno, S.I., Uwai, K., Tomizawa, A., *et al.* Trimidox induces apoptosis via cytochrome c release in NALM-6 human B cell leukaemia cells. *Basic Clin. Pharmacol. Toxicol.* **98(1)**, 44-50 (2006).

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