
Product Data Sheet

Product Name: Trimidox (hydrochloride)

Cat. No.: GC16006

Chemical Properties

Cas. No. 95933-75-8

Chemical Name N,3,4,5-tetrahydroxy-benzenecarboximidamide, monohydrochloride

SMILES Cl.ONC(=N)c1cc(O)c(O)c(O)c1

Formula C₇H₈N₂O₄ • HCl M.Wt 220.6

Solubility ≤20mg/ml in DMSO;20mg/ml in dimethyl formamide 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

Trimidox (hydrochloride) is a specific ribonucleotide reductase inhibitor [1][2][3].

Ribonucleotide reductase is the rate-limiting enzyme for de novo DNA synthesis. This enzyme is linked with proliferation and malignant transformation, and is a common target for cancer chemotherapy [1][2].

Trimidox (hydrochloride) is a specific ribonucleotide reductase inhibitor. Trimidox inhibited the activity of ribonucleotide reductase in extracts of L1210 cells with IC₅₀ value of 5 μM. Trimidox was cytotoxic to L1210 cells with IC₅₀ value of 7.5 μM [3]. In human promyelocytic leukemia HL-60 cells, Trimidox inhibited cell growth with IC₅₀ value of 35 μmol/L. Trimidox (50 μmol/L) reduced deoxyguanosine triphosphate (dGTP) and deoxycytidine triphosphate (dCTP) pools to 24% and 39% of control values, respectively. Trimidox and tiazofurin produced synergistic growth inhibitory activity, suggesting trimidox in combination with tiazofurin might be useful in the treatment of leukemia [1]. In several human leukaemia cell lines, Trimidox induced apoptosis,

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

significantly increased cytochrome c release and activated caspase-3 and -9 [2].

In mice bearing intraperitoneally transplanted L1210 leukemia, Trimidox significantly increased the life span in a dose-dependent way [3].

References:

- [1]. Szekeres T, Fritzer M, Strobl H, et al. Synergistic growth inhibitory and differentiating effects of trimidox and tiazofurin in human promyelocytic leukemia HL-60 cells. *Blood*. 1994 Dec 15;84(12):4316-21.
- [2]. Kanno S, 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*. 2006 Jan;98(1):44-50.
- [3]. Szekeres T1, Gharehbaghi K, Fritzer M, et al. Biochemical and antitumor activity of trimidox, a new inhibitor of ribonucleotide reductase. *Cancer Chemother Pharmacol*. 1994;34(1):63-6.

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