

Product Data Sheet

Product Name: PR-104A

Cat. No.: GC62490

Chemical Properties

Cas. No. 680199-06-8

Formula $C_{14}H_{19}BrN_4O_9S$

M.Wt 499.29

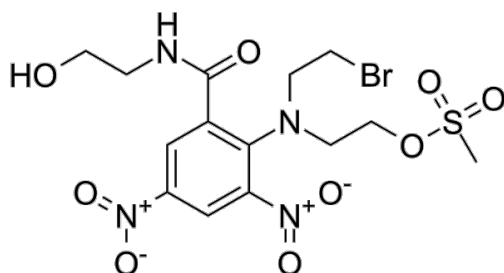
Solubility

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

PR-104A (SN 27858) is the alcohol metabolite of phosphate prodrug PR-104. PR-104A is a hypoxia-selective DNA cross-linking agent/DNA-damaging agent and cytotoxin. Antitumor Activity[1]. PR-104A is metabolized under hypoxia by the 1-electron NADPH:cytochrome P450 oxidoreductase. PR-104A can be used for the research of relapsed/refractory T-lineage acute lymphoblastic leukemia (T-ALL)[2].

PR-104A (1-100 μ M) shows antiproliferative potency in a panel of 10 human carcinoma cell lines following 4 hours exposures under aerobic and hypoxic conditions with the lowest IC50 (0.51 μ M) in

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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H460 non-small cell lung cancer cells and highest (7.3 μ M) in PC3 prostate cells[1].

The phosphate ester "pre-prodrug" PR-104 is well tolerated in mice and converted rapidly to the corresponding prodrug PR-104A. H460 xenografts shows significant sensitivity to PR-104 (total dose 3.2 mmol/kg)[1].

[1]. Adam V Patterson, et al. Mechanism of action and preclinical antitumor activity of the novel hypoxia-activated DNA cross-linking agent PR-104. Clin Cancer Res. 2007 Jul 1;13(13):3922-32.

[2]. Donya Moradi Manesh, et al. AKR1C3 is a biomarker of sensitivity to PR-104 in preclinical models of T-cell acute lymphoblastic leukemia. Blood. 2015 Sep 3;126(10):1193-202.

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