

Product Data Sheet

Product Name: Busulfan-d8

Cat. No.: GC46962

Chemical Properties

Cas. No. 116653-28-2

SMILES CS(OC([2H])([2H])C([2H])([2H])C([2H])([2H])C([2H])([2H])OS(C)(=O)=O)(=O)=O

Formula C₆H₆D₈O₆S₂

M.Wt 254.3

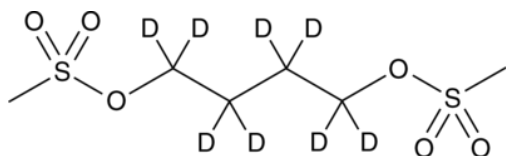
Solubility DMF: 16.7 mg/ml, DMSO: 16.7 mg/ml, DMSO:PBS (pH 7.2) (1:1): 0.5 mg/ml

Storage Store at -20°C, protect from light

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

Busulfan-d8 is a fully deuterium-stabilized busulfan isotope internal standard. Busulfan-d8 serves as an internal standard for LC-MS/MS or GC-MS to correct matrix effects and extraction recovery. Busulfan-d8 can be used for busulfan therapeutic drug monitoring in chronic myeloid leukemia and hematopoietic stem cell transplantation conditioning. Busulfan-d8 can be used for AUC exposure and pharmacokinetic research^[1-4].

References:

- [1] Nadella TR, Suryadevara V, Lankapalli SR, et al. LC-MS/MS method development for quantification of busulfan in human plasma and its application in pharmacokinetic study. J Pharm Biomed Anal. 2016 Feb 20;120:168-74.
- [2] Andersen AM, Bergan S, Gedde-Dahl T, et al. Fast and reliable quantification of busulfan in blood plasma using two-channel liquid chromatography tandem mass spectrometry: Validation of assay

Caution: Product has not been fully validated for medical applications. For research use only.

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performance in the presence of drug formulation excipients. J Pharm Biomed Anal. 2021 Sep 5;203:114216.

[3] Quernin MH, Poonkuzhali B, Montes C, et al. Quantification of busulfan in plasma by gas chromatography-mass spectrometry following derivatization with tetrafluorothiophenol. J Chromatogr B Biomed Sci Appl. 1998 May 8;709(1):47-56.

[4] Deng S, Kiscoan M, Frazee C, et al. A Simple Liquid Chromatography Tandem Mass Spectrometry Method for Quantitation of Plasma Busulfan. Methods Mol Biol. 2016;1383:79-87.

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