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## Product Data Sheet

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Product Name: Bisdemethoxycurcumin-d8

Cat. No.: GC68308

### Chemical Properties

Cas. No. 2470233-08-8

Formula  $C_{19}H_8D_8O_4$  M.Wt 316.38

Solubility Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  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

Bisdemethoxycurcumin-d8 (Curcumin III-d8) is the deuterium labeled Bisdemethoxycurcumin. Bisdemethoxycurcumin (Curcumin III; Didemethoxycurcumin) is a natural derivative of curcumin with anti-inflammatory and anti-cancer activities.

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Lee PJ, et al. Bisdemethoxycurcumin Induces Apoptosis in Activated Hepatic Stellate Cells via Cannabinoid Receptor 2. *Molecules.* 2015 Jan 14;20(1):1277-92.

[3]. Chen J, et al. Natural borneol enhances bisdemethoxycurcumin-induced cell cycle arrest in the G2/M phase through up-regulation of intracellular ROS in HepG2 cells. *Food Funct.* 2014 Dec 24.

[4]. Luo C, et al. Bisdemethoxycurcumin attenuates gastric adenocarcinoma growth by inducing mitochondrial dysfunction. *Oncol Lett.* 2015 Jan;9(1):270-274.

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

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[5]. Li YB, et al. Bisdemethoxycurcumin Increases Sirt1 to Antagonize t-BHP-Induced Premature Senescence in WI38 Fibroblast Cells. Evid Based Complement Alternat Med. 2013;2013:851714.

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