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## Product Data Sheet

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Product Name: Bedaquiline impurity 2-d6

Cat. No.: GC65017

### Chemical Properties

Cas. No.

Formula C31H23D6BrN2O2

M.Wt

547.52

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

Bedaquiline impurity 2-d6 is deuterium labeled Bedaquiline. Bedaquiline (TMC207) is a diarylquinoline drug and inhibits Mycobacterium tuberculosis (Mtb) F1FO-ATP synthase through targeting of both the c- and the ε-subunit[1]. Bedaquiline has uncoupler activity. Bedaquiline is used for the multi-drug resistant tuberculosis[2].

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[1].

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

[2]. Jang JC, et al. Bedaquiline susceptibility test for totally drug-resistant tuberculosis Mycobacterium tuberculosis. J Microbiol. 2017 Apr 20.

[3]. Sarathy JP, et al. TBAJ-876 displays Bedaquiline-like mycobactericidal potency without retaining the parental drug's uncoupler activity. Antimicrob Agents Chemother. 2019 Nov 11.

[4]. Chahine EB, et al. Bedaquiline: a novel diarylquinoline for multidrug-resistant tuberculosis. Ann Pharmacother. 2014 Jan;48(1):107-15.

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

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[5]. Pang Y, et al. In Vitro Activity of Bedaquiline against Nontuberculous Mycobacteria in China. Antimicrob Agents Chemother. 2017 Apr 24;61(5).

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