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**Product Data Sheet**

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Product Name: Phenothiazine-d8

Cat. No.: GC69698

**Chemical Properties**

Cas. No. 1219803-41-4

Formula C<sub>12</sub>HD<sub>8</sub>NS

M.Wt 207.32

Solubility DMSO : 100 mg/mL (482.35 mM; Need ultrasonic) 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**

Phenothiazine-dg is the deuterium labeled Phenothiazine. Phenothiazine is an antibiotic which has insecticidal, fungicidal, antibacterial and anthelmintic activities. Phenothiazine also can be used for the research of neurological diseases[1][2].

Stable heavy isotopes of drogen, 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]. Mitchell SC, et, al. The toxicity of phenothiazine. Drug Metabol Drug Interact. 1994;11(3):201-35.

[3]. Ohlow MJ, et, al. Phenothiazine: the seven lives of pharmacology's first lead structure. Drug Discov Today. 2011 Feb;16(3-4):119-31.

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

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