
Product Data Sheet

Product Name: Fenvalerate-d5

Cat. No.: GC63327

Chemical Properties

Cas. No. 1246815-00-8

Formula $C_{25}H_{17}D_5ClNO_3$ M.Wt 424.93

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**

Fenvalerate-d5 is the deuterium labeled Fenvalerate. Fenvalerate is a potent protein phosphatase 2B (calcineurin) inhibitor with an IC50 of 2-4 nM for PP2B-A α . Fenvalerate is a pyrethroid ester insecticide and acaricide[1].

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]. E Enan, et al. Specific Inhibition of Calcineurin by Type II Synthetic Pyrethroid Insecticides. *Biochem Pharmacol.* 1992 Apr 15;43(8):1777-84.; A R Reilein, et al. Regulation of Organelle Movement in Melanophores by Protein Kinase A (PKA), Protein Kinase C (PKC), and Protein Phosphatase 2A (PP2A). *J Cell Biol.* 1998 Aug 10;142(3):803-13.

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

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