

Product Data Sheet

Product Name: Permethrin-d9

Cat. No.: GC91191

Chemical Properties

Cas. No.

Formula $C_{21}H_{11}D_9Cl_2O_3$

M.Wt 400.3

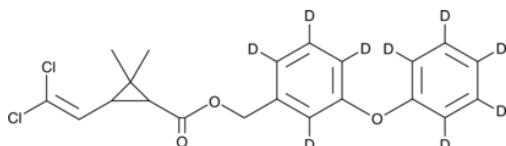
Solubility Methanol: Slightly soluble

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

Permethrin-d₉ is intended for use as an internal standard for the quantification of permethrin by GC- or LC-MS. Permethrin is a modulator of voltage-gated sodium channels (Na_v) that is used as an insecticide.¹ It delays channel deactivation of the Na_v1.8 channel expressed in *X. laevis* oocytes. It is at least 100-fold more potent at insect than mammalian sodium channels, leading to slow deactivation of *D. para*/TipE, but not rat brain IIA or β1, sodium channels expressed in *X. laevis* oocytes when used at a concentration of 500 nM.² Permethrin (5 μM) increases sodium influx in BV-2 and primary microglial cells by approximately 28 and 29%, respectively, and activates microglia.³ Long-term application of permethrin leads to dose- and time-dependent intracellular sodium accumulation and TNF-α release in microglia *in vitro*. Formulations containing permethrin have been used for the treatment of head lice and scabies infestations.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA