**Proteins** 

## **Product** Data Sheet

# **β-Cyfluthrin**

Cat. No.: HY-B1837A CAS No.: 1820573-27-0 Molecular Formula:  $C_{22}H_{18}Cl_2FNO_3$ 

Molecular Weight: 434.29

Target: Calcium Channel

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: Powder -20°C 3 years

In solvent

4°C 2 years -80°C 6 months

-20°C 1 month

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 50 mg/mL (115.13 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.3026 mL	11.5130 mL	23.0261 mL
	5 mM	0.4605 mL	2.3026 mL	4.6052 mL
	10 mM	0.2303 mL	1.1513 mL	2.3026 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (5.76 mM); Suspended solution; Need ultrasonic
- 2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.76 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	$β$ -Cyfluthrin (beta-Cyfluthrin) is a type II synthetic pyrethroid and also an active ingredient of many insecticide products used for pestsin agriculture. $β$ -Cyfluthrin is a neurotoxicant and affects calcium concentration in nervous tissue by inhibiting $Ca^{2+}$ ATPase involved in calcium transport <sup>[1]</sup> .
IC <sub>50</sub> & Target	Target: Ca <sup>2+</sup> ATPase <sup>[1]</sup>

#### **REFERENCES**

1]. Neelu Kanwar Rajawat, et al Health. 2019 May;35(5):358-367.		etic Pyrethroid) on Learning, Mu	scular Coordination and Oxidative Str	ress in Swiss Albino Mice. Toxicol Ind	
Caution: Product has not been fully validated for medical applications. For research use only.					
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