## **Product** Data Sheet

## Felbamate-d5

Cat. No.: HY-B0184S1 CAS No.: 1191888-51-3 Molecular Formula:  $C_{11}H_9D_5N_2O_4$  Molecular Weight: 243.27

Target: iGluR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

$$H_2N$$
 $D$ 
 $D$ 
 $D$ 
 $D$ 
 $D$ 
 $D$ 
 $D$ 

## **BIOLOGICAL ACTIVITY**

Description	Felbamate- $d_5$ is the deuterium labeled Felbamate[1]. Felbamate (W-554) is a potent nonsedative anticonvulsant whose clinical effect may be related to the inhibition of N-methyl-D-aspartate (NMDA)[2][3].
In Vitro	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 <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

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

[2]. Kuo CC, et al. Use-dependent inhibition of the N-methyl-D-aspartate currents by felbamate: a gating modifier with selective binding to the desensitized channels. Mol Pharmacol. 2004 Feb;65(2):370-80.

[3]. Harty TP, et al. Felbamate block of recombinant N-methyl-D-aspartate receptors: selectivity for the NR2B subunit. Epilepsy Res. 2000 Mar;39(1):47-55.

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

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