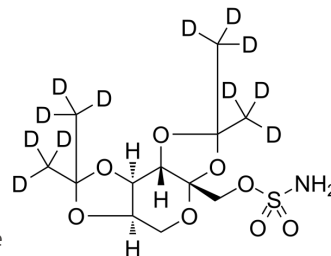


Topiramate D12

Cat. No.:	HY-110234
CAS No.:	1279037-95-4
Molecular Formula:	C ₁₂ H ₉ D ₁₂ NO ₈ S
Molecular Weight:	351.44
Target:	iGluR; GABA Receptor; Sodium Channel; Calcium Channel; Potassium Channel; Carbonic Anhydrase
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Topiramate D12 (McN 4853 D12) is a deuterium labeled Topiramate. Topiramate is a broad-spectrum antiepileptic agent. Topiramate is a GluR5 receptor antagonist. Topiramate produces its antiepileptic effects through enhancement of GABAergic activity, inhibition of kainate/AMPA receptors, inhibition of voltage-sensitive sodium and calcium channels, increases in potassium conductance, and inhibition of carbonic anhydrase ^{[1][2][3]} .
IC₅₀ & Target	GluR5 receptor ^[1] ; GABAergic ^[2] ; Kainate/AMPA ^[2] ; Sodium channel ^[2] ; Calcium channel ^[2] ; Potassium channel ^[2] ; Carbonic anhydrase ^[2]

REFERENCES

- [1]. Lyseng-Williamson KA, et al. Topiramate: a review of its use in the treatment of epilepsy. *Drugs*. 2007;67(15):2231-56.
- [2]. Nakamura J, et al. Target pharmacology of topiramate, a new antiepileptic drug. *Nihon Yakurigaku Zasshi*. 2000 Jan;115(1):53-7.
- [3]. Kaminski RM, et al. Topiramate selectively protects against seizures induced by ATPA, a GluR5 kainate receptor agonist. *Neuropharmacology*. 2004 Jun;46(8):1097-104.

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

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