

Product Data Sheet

Product Name: Benocyclidine-d10

Cat. No.: GC46916

Chemical Properties

Cas. No. N/A

SMILES [2H]C(C([2H])([2H])C([2H])([2H])C([2H])([2H])C1([2H])([2H])([2H])N1C2(C3=CC4=C(C=C)C=C4)S3)CCCCC2

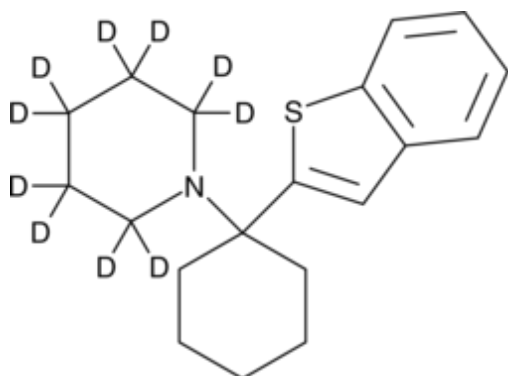
Formula C₁₉H₁₅D₁₀NS M.Wt 309.5

Solubility DMF: 5 mg/ml, Ethanol: 2 mg/ml Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Benocyclidine-d₁₀ (BCP-d₁₀) contains ten deuterium atoms at the 2, 2', 3, 3', 4, 4', 5, 5', 6, and 6' positions. It is intended for use as an internal standard for the quantification of BCP by GC- or LC-mass spectrometry. BCP is a derivative of phencyclidine with a benzothiophenyl group instead of a phenyl ring. It acts as a potent and selective dopamine reuptake inhibitor (IC₅₀ = 8 nM) with negligible affinity for the NMDA receptor-linked phencyclidine receptor (K_{0.5} = 6 μM).^{1,2} BCP has been used to label the dopamine transporter in the mouse brain.³ This product is intended for forensic and research applications.

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

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1. Vignon, J., Pinet, V., Cerruti, C., et al. [3H]N-[1-(2-benzo(b)thiophenyl)cyclohexyl]piperidine ([3H]BTCP): A new phencyclidine analog selective for the dopamine uptake complex. *European Journal of Pharmacology* 148(3)427-436(1988)

2. Chaudieu, I., Vignon, J., Chicheportiche, M., et al. Role of the aromatic group in the inhibition of phencyclidine binding and dopamine uptake by PCP analogs. *Pharmacology, Biochemistry, and Behavior* 32(3)699-705(1989)

3. Maurice, T., Vignon, J., Kamenka, J.M., et al. In vivo labelling of the mouse dopamine uptake complex with the phencyclidine derivative [3H]BTCP. *Neuroscience Letters* 101(2)234-238(1989)

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