

Product Data Sheet

Product Name: (±)-Baclofen-d₄

Cat. No.: GC46274

Chemical Properties

Cas. No. 1189938-30-4

SMILES C1C=C([2H])C([2H])=C(C(CN)CC(O)=O)C([2H])=C1[2H]

Formula C₁₀H₈ClD₄NO₂

M.Wt 217.7

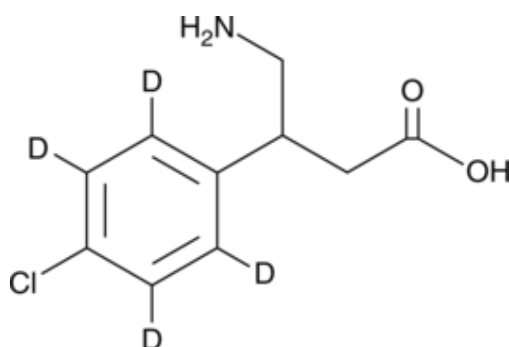
Solubility Water: soluble

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

(±)-Baclofen-d₄ is intended for use as an internal standard for the quantification of (±)-baclofen by GC- or LC-MS. (±)-Baclofen is a GABA_B receptor agonist (IC₅₀ = 180 nM).¹ It induces norepinephrine release from isolated rat atria (IC₅₀ = 4.5 μM). (±)-Baclofen (10 mg/kg) increases muscle rigidity in spastic mice.² It inhibits the norepinephrine-induced group II flexor reflex in anesthetized rats.³ (±)-Baclofen also reduces cocaine-induced hyperlocomotion in rats and binge-like ethanol intake in mice.^{4,5} Formulations containing baclofen have been used to treat muscle spasms caused by multiple sclerosis and spinal cord injury.

1. Hill, D.R., and Bowery, N.G. 3H-baclofen and 3H-GABA bind to bicuculline-insensitive GABA_B sites

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

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in rat brain *Nature* 290(5802)(1981) 2. Biscoe, T.J., and Fry, J.P. Some pharmacological studies on the spastic mouse *Br. J. Pharmacol.* 75(1)23-25(1982) 3. Sakitani, K. The effects of centrally acting muscle relaxants on the intrathecal noradrenaline-induced facilitation of the flexor reflex mediated by group II afferent fibers in rats *Jpn. J. Pharmacol.* 63(3)369-376(1993) 4. Lhuillier, L., Mombereau, C., Cryan, J.F., et al. GABAB receptor-positive modulation decreases selective molecular and behavioral effects of cocaine *Neuropsychopharmacology* 32(2)388-398(2007) 5. Moore, E.M., and Boehm, S.L., II Site-specific microinjection of baclofen into the anterior ventral tegmental area reduces binge-like ethanol intake in male C57BL/6J mice *Behav. Neurosci.* 123(3)555-563(2009)

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