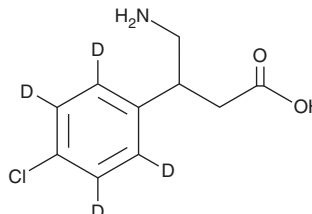


PRODUCT INFORMATION



(±)-Baclofen-d₄ Item No. 27811

CAS Registry No.: 1189938-30-4
Formal Name: 4-amino-3-(4-chlorophenyl-2,3,5,6-d₄)
butanoic acid
MF: C₁₀H₈ClD₄NO₂
FW: 217.7
Chemical Purity: ≥98% ((±)-Baclofen)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

(±)-Baclofen-d₄ is intended for use as an internal standard for the quantification of (±)-baclofen (Item No. 18600) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

(±)-Baclofen-d₄ is supplied as a solid. A stock solution may be made by dissolving the (±)-baclofen-d₄ in the solvent of choice.

Description

(±)-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.

References

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

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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