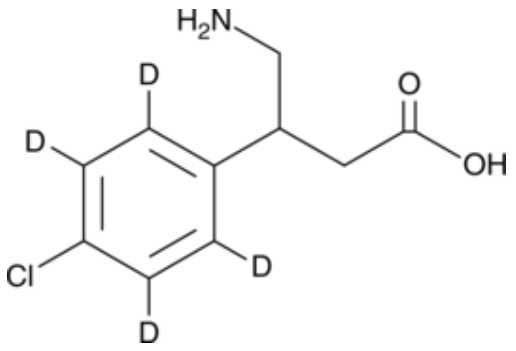
Product Data Sheet

Product Name: (±)-Baclofen-d4
Cat. No.: GC46274

Chemical Properties

Cas. No.	1189938-30-4		
SMILES	ClC1=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-d_4 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 (IC_{50} = 180 nM).[1] It induces norepinephrine release from isolated rat atria (IC_{50} = 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 GABAB sites

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in rat brainNature290(5802)(1981) 2.Biscoe, T.J., and Fry, J.P.Some pharmacological studies on the spastic mouseBr. 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 ratsJpn. 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 cocaineNeuropsychopharmacology32(2)388-398(2007) 5.Moore, E.M., and Boehm, S.L., IISite-specific microinjection of baclofen into the anterior ventral tegmental area reduces binge-like ethanol intake in male C57BL/6J miceBehav. Neurosci.123(3)555-563(2009)

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