

Product Data Sheet

Product Name: 2-Bromo-LSD D-Tartrate

Cat. No.: GC81435

Chemical Properties

Cas. No. 2855123-30-5

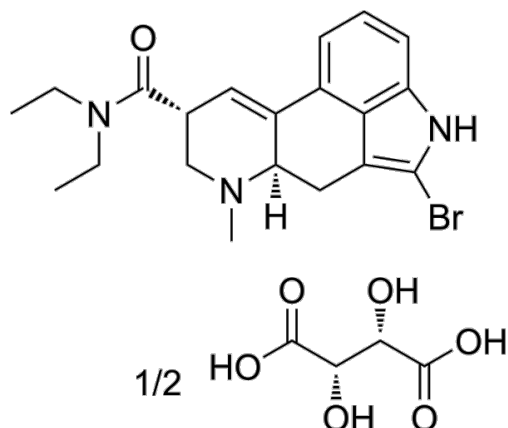
Formula $C_{20}H_{24}BrN_3O \cdot 1/2 C_4H_6O_6$ M.Wt 477.39

Solubility DMSO: 100 mg/mL (209.47 mM; Need ultrasonic) Storage Store at 4°C, stored under nitrogen

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

2-Bromo-LSD D-Tartrate (BOL-148 D-Tartrate) is a blood-brain barrier-permeable 5-HT_{2A} partial agonist and competitive partial antagonist. 2-Bromo-LSD D-Tartrate acts as both a potent partial agonist (with an EC₅₀ of 0.81 nM for Gq dissociation) and a potent partial antagonist (with a K_B of 0.18 nM for Gq dissociation) at the 5-HT_{2A} receptor. 2-Bromo-LSD D-Tartrate exhibits partial agonist activity at multiple aminergic GPCRs, including 5-HT_{2A}. 2-Bromo-LSD D-Tartrate lacks 5-HT_{2B} agonist activity. 2-Bromo-LSD D-Tartrate induces dendritogenesis and spinogenesis. 2-Bromo-LSD D-Tartrate reverses the behavioral effects of chronic stress and increases active coping.

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

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behaviors in mice [1] [2].

In Vivo, 2-Bromo-LSD D-Tartrate (0.125-4 mg/kg; i.p.) dose-dependently increases striatal DOPA accumulation in rats, with maximum effects at 2-4 mg/kg that exceed those of equimolar LSD, acts as an antagonist of Apomorphine -induced DOPA accumulation reduction, and blocks LSD's inhibitory effect on GBL-stimulated DOPA accumulation^[1]. 2-Bromo-LSD D-Tartrate (0.125-2.0 mg/kg; i.p.) co-administered with LSD does not produce a statistically significant change in striatal DOPA accumulation compared to 2-Bromo-LSD D-Tartrate alone at matching doses^[1]. 2-Bromo-LSD D-Tartrate (0.1-10 mg/kg; i.p.; single dose) does not induce the hallucinogen-associated head-twitch response in male C57BL/6J mice, but dose-dependently blocks DOI-induced head-twitch responses, achieving 76% inhibition at the 3 mg/kg dose^[2].

In Vitro, 2-Bromo-LSD D-Tartrate acts as both a potent partial agonist ($EC_{50} = 0.81$ nM, $E_{max} = 59.8\%$ for Gq dissociation) and a potent partial antagonist ($KB = 0.18$ nM for Gq dissociation) at the 5-HT_{2A} receptor^[2]. 2-Bromo-LSD D-Tartrate exerts weak blocking effects on hERG channels ($IC_{50} = 31.6$ μ M)^[2]. 2-Bromo-LSD D-Tartrate (1-10 μ M; 3 h) promotes dendrogenesis and dendritic spine density in primary rat cortical neurons^[2].

References:

- [1]. Persson SA, et al. The effect of LSD and 2-bromo LSD on the striatal DOPA accumulation after decarboxylase inhibition in rats. Eur J Pharmacol. 1977;43(1):73-83.
- [2]. Lewis V, et al. A non-hallucinogenic LSD analog with therapeutic potential for mood disorders. Cell Rep. 2023;42(3):112203.

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