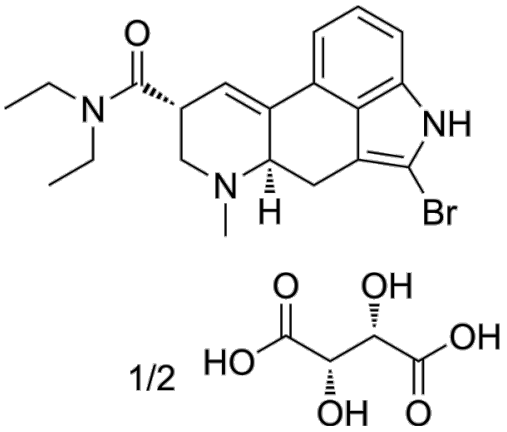
Product Data Sheet

Product Name: 2-Bromo-LSD D-Tartrate
Cat. No.: GC81435

Chemical Properties

Cas. No.	2855123-30-5		
Formula	$C_{20}H_{24}BrN_3O{\cdot}1/2C_4H_6O_6$	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 EC 50 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 GPCR s, 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

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 (EC50 = 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-HT2A receptor[2]. 2-Bromo-LSD D-Tartrate exerts weak blocking effects on hERG channels (IC_{50} = 31.6 μM)[2]. 2-Bromo-LSD D-Tartrate (1-10 μM; 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.