

Product Data Sheet

Product Name: Perphenazine-d4

Cat. No.: GC48561

Chemical Properties

Cas. No. 155593-75-2

SMILES OCCN(CC1)CCN1CCCN2C3=C([2H])C(Cl)=C([2H])C=C3SC4=CC([2H])=CC([2H])=C42

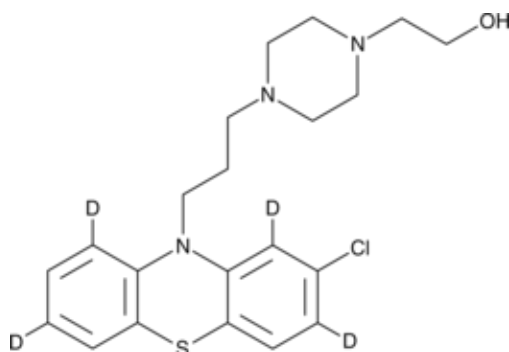
Formula C₂₁H₂₂ClD₄N₃OS M.Wt 408

Solubility DMSO : 100 mg/mL (245.10 mM; Storage -20°C
Need ultrasonic)

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

Perphenazine-d4 is intended for use as an internal standard for the quantification of perphenazine by GC- or LC-MS. Perphenazine is a typical antipsychotic.¹ It binds to dopamine D₂, α_{1A}-, α_{2A}-, α_{2B}-, and α_{2C}-adrenergic, M₃ muscarinic, and histamine H₁ receptors (K_is = 1.4, 10, 1,848, 104.9, 85.2, 810.5 and 8 nM, respectively), as well as the serotonin (5-HT) receptor subtypes 5-HT_{1A}, 5-HT_{2A}, 5-HT_{2C}, 5-HT₆, and 5-HT₇ (K_is = 421, 5.6, 132, 17, and 23 nM, respectively). Perphenazine (1, 5, and 10 mg/kg) enhances morphine-induced analgesia in the tail-flick and hot plate tests in rats.² It

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

reduces cannibalism in female mice when administered at doses of 2 and 4 mg/kg.³ Formulations containing perphenazine have been used in the treatment of schizophrenia and psychosis.

1.Kroeze, W.K., Hufeisen, S.J., Popadak, B.A., et al.H1-histamine receptor affinity predicts short-term weight gain for typical and atypical antipsychotic drugsNeuropsychopharmacology28(3)519-526(2003) 2.Ozdemir, E., Bagcivan, I., and Gursoy, S.Role of D₂/D₂ dopamin receptors antagonist perphenazine in morphine analgesia and tolerance in ratsBosn. J. Basic Med. Sci.13(2)119-125(2013) 3.Carter, D.B., Kennett, M.J., and Franklin, C.L.Use of perphenazine to control cannibalism in DBA/1 miceComp. Med.52(5)452-455(2002)

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA