

Product Data Sheet

Product Name: Risperidone-d4

Cat. No.: GC48056

Chemical Properties

Cas. No. 1020719-76-9

SMILES O=C1N2C(CCCC2)=NC(C)=C1C([2H])([2H])C([2H])([2H])N3CCC(C4=NOC5=C4C=CC(F)=C5)CC3

Formula C₂₃H₂₃FN₄O₂D₄

M.Wt 414.5

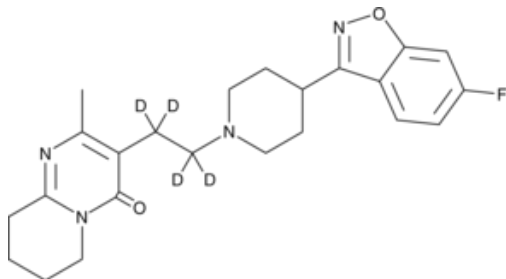
Solubility DMSO : 10 mg/mL (24.12 mM);
ultrasonic and warming and heat to
60°C)

Storage Store at -20°C

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the
tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or
Condition blue ice upon request.

Structure



Background

Risperidone-d₅ is intended for use as an internal standard for the quantification of risperidone by GC- or LC-MS. Risperidone is an atypical antipsychotic that binds to dopamine D₂ receptors ($K_i = 3$ nM) and the serotonin (5-HT) receptor subtype 5-HT_{2A} ($K_i = 0.12$ nM).^{1,2} It also binds to dopamine D₄, α_1 - and α_2 -adrenergic, 5-HT_{1C}, 5-HT_{1D}, and histamine H₁ receptors (K_i s = 7, 0.81, 7.3, 47, 52, and 2.1 nM, respectively). Risperidone (0.1 mg/kg per day, i.p.) attenuates deficits in prepulse inhibition of the acoustic startle response, but not deficits in social interaction, in a rat neonatal ventral hippocampal lesion model of schizophrenia.³ Formulations containing risperidone have been used in

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

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the treatment of schizophrenia and bipolar disorder.

1. Leysen, J.E., Janssen, P.M., Gommeren, W., et al. In vitro and in vivo receptor binding and effects on monoamine turnover in rat brain regions of the novel antipsychotics risperidone and olanzapine. *Mol. Pharmacol.* 41(3):494-508 (1992)

2. Bymaster, F.P., Calligaro, D.O., Falcone, J.F., et al. Radioreceptor binding profile of the atypical antipsychotic olanzapine. *Neuropsychopharmacology* 14(2):87-96 (1996)

3. Rueter, L.E., Ballard, M.E., Gallagher, K.B., et al. Chronic low dose risperidone and clozapine alleviate positive but not negative symptoms in the rat neonatal ventral hippocampal lesion model of schizophrenia. *Psychopharmacology (Berl.)* 176(3-4):312-319 (2004)

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