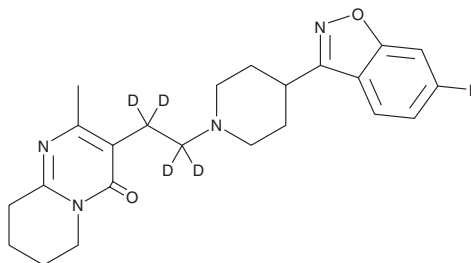


PRODUCT INFORMATION



Risperidone-d₄ Item No. 10010570

CAS Registry No.: 1020719-76-9
Formal Name: 3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]ethyl-1,1,2,2-d₄]-6,7,8,9-tetrahydro-2-methyl-4H-pyrido[1,2-a]pyrimidin-4-one
MF: C₂₃H₂₃FN₄O₂D₄
FW: 414.5
Chemical Purity: ≥95% (Risperidone)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Risperidone-d₄ is intended for use as an internal standard for the quantification of risperidone (Item No. 13629) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Risperidone-d₄ is supplied as a solid. A stock solution may be made by dissolving the risperidone-d₄ in the solvent of choice, which should be purged with an inert gas. Risperidone-d₄ is slightly soluble in chloroform and methanol.

Description

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, α₁- and α₂-adrenergic, 5-HT_{1C}, 5-HT_{1D}, and histamine H₁ receptors (K_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 the treatment of schizophrenia and bipolar disorder.

References

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 ocapiperdone. *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).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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