Risperidone
Item No. 13629

CAS Registry No.: 106266-06-2
Formal Name: 3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]ethyl]-6,7,8,9-tetrahydro-2-methyl-4H-pyrido[1,2-a]pyrimidin-4-one
Synonyms: Apexitdone, Psychodal, R 64766
MF: C_{21}H_{27}FN_4O_2
FW: 410.5
Purity: ≥95%
UV/Vis.: λ_{max} = 237, 279 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

Risperidone is supplied as a crystalline solid. A stock solution may be made by dissolving the risperidone in the solvent of choice. Risperidone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of risperidone in these solvents is approximately 0.3, 2, and 0.1 mg/ml, respectively.

Risperidone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, risperidone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Risperidone has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Risperidone is an atypical antipsychotic that binds to dopamine D_2 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 D_3, α_1- and α_2-adrenergic, 5-HT_1C, 5-HT_1D, and histamine H_1 receptors (K_i = 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