
Product Data Sheet

Product Name: Melperone

Cat. No.: GC36581

Chemical Properties

Cas. No. 3575-80-2

SMILES O=C(C1=CC=C(F)C=C1)CCCN2CCC(C)CC2Formula $C_{16}H_{22}FNO$

M.Wt 263.35

Solubility DMSO: 41.67 mg/mL (158.23 mM)

Storage Store at -20°C

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**

Melperone is an atypical antipsychotic.¹ It binds to α_1 - and α_2 -adrenergic and dopamine D_2 receptors (K_D s = 180, 150, and 180 nM, respectively), as well as the serotonin (5-HT) receptor subtype 5-HT_{2A} (K_D = 102 nM). It is selective for these receptors over histamine H₁, muscarinic, 5-HT_{1A}, 5-HT_{1D}, and 5-HT_{2C} receptors (K_D s = 580, >10,000, 2,200, 3,400, and 2,100 nM, respectively). Melperone (2 mg/kg per day) increases basal, but not amphetamine-induced, extracellular dopamine levels in the rat nucleus accumbens.²

1. Richelson, E., and Souder, T. Binding of antipsychotic drugs to human brain receptors: Focus on newer generation compounds. *Life Sci.* 68(1)29-39(2000) 2. Ichikawa, J., and Meltzer, H.Y. The effect of chronic atypical antipsychotic drugs and haloperidol on amphetamine-induced dopamine release in vivo. *Brain Res.* 574(1-2)98-104(1992)

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

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