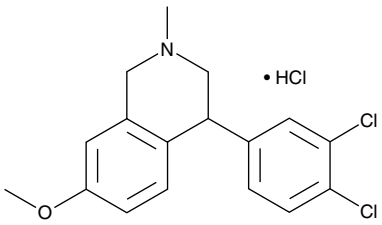
Product Information

Diclofensine (hydrochloride)

Item No. 15355

CAS Registry No.: 34041-84-4
Formal Name: 4-(3,4-dichlorophenyl)-1,2,3, 4-tetrahydro-7-methoxy-2-methyl-isoquinoline, monohydrochloride
Synonym: Ro 8-4650
MF: $C_{17}H_{17}Cl_2NO \bullet HCl$
FW: 358.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that diclofensine (hydrochloride) be stored as supplied at -20°C. It should be stable for at least two years.

Diclofensine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the diclofensine (hydrochloride) in the solvent of choice. Diclofensine (hydrochloride) is soluble in methanol at a concentration of approximately 10 mg/ml.

Diclofensine (hydrochloride) is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Diclofensine is a potent inhibitor of monoamine reuptake, blocking the uptake of dopamine, noradrenaline, and serotonin by rat brain synaptosomes with IC_{50} values of 0.74, 2.3, and 3.7 nM, respectively.[1] While it has applications as an antidepressant, diclofensine increases locomotor activity, decreases food intake, and has abuse potential.[2-5] This product is intended for research and forensic applications.

References

1. Hyttel, J. and Larsen, J.J. Neurochemical profile of Lu 19-005, a potent inhibitor of uptake of dopamine, noradrenaline, and serotonin. *J. Neurochem.* **44(5)**, 1615-1622 (1985).
2. Jackson, S.H., Turner, P., and Ehsanullah, R.S. A comparison of diclofensine and desmethylimipramine using tyramine pressor tests in normal subjects. *Br. J. Clin. Pharmacol.* **16(4)**, 427-429 (1983).
3. Cilug, J., Ehsanullah, R.S., Hallett, C., *et al.* A clinical pharmacological comparison of diclofensine (Ro 8-4650) with nomifensine and amitriptyline in normal human volunteers. *Br. J. Clin. Pharmacol.* **15(5)**, 537-543 (1983).
4. Lamb, R.J. and Griffiths, R.R. Self-administration in baboons and the discriminative stimulus effects in rats of bupropion, nomifensine, diclofensine and imipramine. *Psychopharmacology (Berl)* **102(2)**, 183-190 (1990).
5. Nakachi, N., Kiuchi, Y., Inagaki, M., *et al.* Effects of various dopamine uptake inhibitors on striatal extracellular dopamine levels and behaviours in rats. *Eur. J. Pharmacol.* **281(2)**, 195-203 (1995).

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