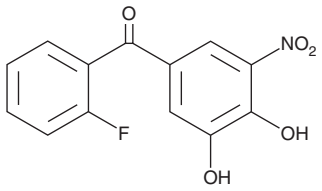
PRODUCT INFORMATION

Ro 41-0960

Item No. 29621

CAS Registry No.:	125628-97-9
Formal Name:	(3,4-dihydroxy-5-nitrophenyl) (2-fluorophenyl)-methanone
MF:	$C_{13}H_8FNO_5$
FW:	277.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 219, 258, 278 nm
Supplied as:	A crystalline 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

Ro 41-0960 is supplied as a crystalline solid. A stock solution may be made by dissolving the Ro 41-0960 in the solvent of choice, which should be purged with an inert gas. Ro 41-0960 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of Ro 41-0960 in these solvents is approximately 20 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Ro 41-0960 can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Ro 41-0960 in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ro 41-0960 is a catechol-O-methyltransferase (COMT) inhibitor.[1] It prevents dopaminergic neuron loss induced by L-DOPA (Item No. 13248) in primary rat rostral mesencephalic tegmentum cultures (EC_{50} = 0.1 µM). Ro 41-0960 (30 mg/kg) potentiates L-DOPA and carbidopa-induced reversal of reserpine-induced akinesias in rats and reserpine-induced catalepsy and hypothermia in mice.[2] It reduces striatal 3-methyl-DOPA levels and increases striatal dopamine (Item No. 21992) and 3,4-dihydroxyphenylacetic acid (DOPAC; Item No. 24912) levels in rats. Ro 41-0960 (150 mg/kg) also reduces fibroid volume in the Eker rat model of uterine fibroids.[3]

References

1. Storch, A., Blessing, H., Bareiss, M., *et al.* Catechol-*O*-methyltransferase inhibition attenuates levodopa toxicity in mesencephalic dopamine neurons. *Mol. Pharmacol.* **57(3)**, 589-594 (2000).
2. Rivas, E., de Ceballos, M.L., Nieto, O., *et al. In vivo* effects of new inhibitors of catechol-*O*-methyl transferase. *Br. J. Pharmacol.* **126(7)**, 1667-1673 (1999).
3. Hassan, M.H., Fouad, H., Bahashwan, S., *et al.* Towards non-surgical therapy for uterine fibroids: Catechol-*O*-methyl transferase inhibitor shrinks uterine fibroid lesions in the Eker rat model. *Hum. Reprod.* **26(11)**, 3008-3018 (2011).

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