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DATASHEET

SKF 38393 hydrochloride

Product overview

Name	SKF 38393 hydrochloride
Cat No	HB6111
Alternative names	SKF38393
Biological action	Agonist
Purity	>98%
Description	Prototypic, selective D ₁ -like receptor partial agonist

Biological Data

Biological description	Prototypic, selective D₁-like dopamine receptor partial agonist (K_i values are 1 and ~ 0.5 nM at D₁-like receptors (D₁ and D₅) and ~ 150, ~ 5000 and ~ 1000 nM at D₂-like receptors (D₂, D₃ and D₄) respectively). Hydrochloride salt. SKF 38393 facilitates long term potentiation (LTP) via D₁ and D₅ activation and has also been shown to presynaptically stimulate glutamate release in the hippocampus. Additionally activates the HPA axis to increase ACTH and corticosterone levels. Shows proconvulsant and anorexic effects. Blood brain barrier permeable. Active in vivo. SKF 38393 hydrobromide also available.
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Solubility & Handling

Storage instructions	-20 °C (desiccate)
Solubility overview	Soluble in water (50 mM, warming) and in DMSO (100 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(±)-1-Phenyl-2,3,4,5-tetrahydro-(1H)-3-benzazepine-7,8-diol hydrochloride
Molecular Weight	291.77
Chemical structure	The chemical structure shows a benzazepine core with a phenyl group at position 1 and two hydroxyl groups at positions 7 and 8. It is shown as a hydrochloride salt. The structure is enclosed in a box with "HCl" written next to it.
Molecular Formula	C ₁₆ H ₁₇ NO ₂ .HCl

CAS Number	62717-42-4
PubChem identifier	147514
SMILES	<chem>C1CNCC(C2=CC(=C(C=C21)O)O)C3=CC=CC=C3.Cl</chem>
Source	Synthetic
InChi	InChI=1S/C16H17NO2.ClH/c18-15-8-12-6-7-17-10-14(13(12)9-16(15)19)11-4-2-1-3-5-11;/h1-5,8-9,14,17-19H,6-7,10H2;1H
InChiKey	YEWHJCLOUYPAOH-UHFFFAOYSA-N
MDL number	MFCD00069248
Appearance	White Solid

References

Cloning of the gene for a human dopamine D5 receptor with higher affinity for dopamine than D1.

Sunahara RK *et al* (1991) Nature 350(6319)

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The anorectic effect of SK&F 38393, a selective dopamine D1 receptor agonist: a microstructural analysis of feeding and related behaviour.

Cooper SJ *et al* (1990) Psychopharmacology (Berl) 100(2)

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Effects of quinpirole and SKF 38393 alone and in combination in squirrel monkeys trained to discriminate cocaine.

Katz JL *et al* (1992) Psychopharmacology (Berl) 107(2-3)

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Dopamine receptor pharmacology.

Seeman and Van Tol (1994) Trends Pharmacol Sci. 15(5)

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D1/5 receptor-mediated enhancement of LTP requires PKA, Src family kinases, and NR2B-containing NMDARs.

Stramiello and Wagner (2008) Neuropharmacology 55(5)

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