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DATASHEET

SKF 38393 hydrobromide

Product overview

Name	SKF 38393 hydrobromide
Cat No	HB1840
Biological action	Agonist
Purity	>98%
Description	Prototypic, selective D ₁ -like receptor partial agonist

Biological Data

Biological description	Prototypic, selective D ₁ -like dopamine receptor partial agonist (K _i values are 1 and ~ 0.5 nM at D ₁ -like receptors (D ₁ and D ₅) and ~ 150, ~ 5000 and ~ 1000 nM at D ₂ -like receptors (D ₂ , D ₃ and D ₄) respectively). SKF 38393 facilitates long term potentiation (LTP) via D ₁ and D ₅ 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 hydrochloride also available.
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Solubility & Handling

Storage instructions	-20 °C (desiccate)
Solubility overview	Soluble in water (25 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-(1 <i>H</i>)-3-benzazepine-7,8-diol hydrobromide
Molecular Weight	336.23
Chemical structure	The chemical structure shows a benzazepine ring system. It consists of a benzene ring fused with a seven-membered azepine ring. The azepine ring has a nitrogen atom at position 1 and a double bond between positions 2 and 3. At position 4 of the azepine ring, there is a phenyl group. At position 5, there is a hydroxyl group (-OH). At position 7, there is another hydroxyl group (-OH). At position 8, there is a hydrogen atom. The entire molecule is labeled "HBr" at the bottom right, indicating it is the hydrobromide salt.
Molecular Formula	C ₁₆ H ₁₇ NO ₂ .HBr
CAS Number	20012-10-6
PubChem identifier	12928470

SMILES	C1CNCC(C2=CC(=C(C=C21)O)O)C3=CC=CC=C3.Br
Source	Synthetic
InChi	InChI=1S/C16H17NO2.BrH/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	INNWVRBZMBCEJI-UHFFFAOYSA-N
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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