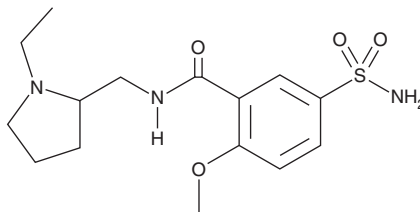


PRODUCT INFORMATION

(±)-Sulpiride

Item No. 25984

CAS Registry No.: 15676-16-1
Formal Name: 5-(aminosulfonyl)-N-[(1-ethyl-2-pyrrolidinyl)methyl]-2-methoxy-benzamide
Synonyms: *rac*-Sulpiride, RD 1403, (RS)-(±)-Sulpiride, (S)-Sulpiride
MF: C₁₅H₂₃N₃O₄S
FW: 341.4
Purity: ≥98%
UV/Vis.: λ_{max}: 212 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

(±)-Sulpiride is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-sulpiride in the solvent of choice. (±)-Sulpiride is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. The solubility of (±)-sulpiride in these solvents is approximately 10 and 100 mM, respectively. (±)-Sulpiride is also soluble at approximately 50 mM in 1N hydrochloride.

Description

(±)-Sulpiride is an atypical antipsychotic that binds to dopamine D₂ and D₃ receptors (K_s = 4.2 and 15 nM, respectively).¹ It is selective for dopamine D₂ and D₃ over D₁ receptors and the serotonin (5-HT) receptor subtypes 5-HT_{1A}, 5-HT_{2A}, 5-HT_{2C}, and 5-HT₃ (K_is = >10,000 nM). (±)-Sulpiride (0.5 or 1 ng per animal) increases attentional accuracy and decreases latency to respond correctly, the number of omissions, and impulsivity in the 5-choice serial reaction time task (5CSRTT) when infused directly into the nucleus accumbens in a rat model of prefrontal cortex lesion-induced attentional dysfunction.² It increases cortical and striatal demethylation of hypermethylated reelin and GAD67 promoters in mice when administered at doses ranging from 12.5 to 50 μmol/kg twice per day for three days.³ Formulations containing (±)-sulpiride have been used in the treatment of schizophrenia.

References

1. Toll, L., Berzetei-Gurske, I.P., Polgar, W.E., *et al.* Standard binding and functional assays related to medications development division testing for potential cocaine and opiate narcotic treatment medications. *NIDA Res. Monogr.* **178**, 440-466 (1998).
2. Pezze, M.A., Dalley, J.W., and Robbins, T.W. Remediation of attentional dysfunction in rats with lesions of the medial prefrontal cortex by intra-accumbens administration of the dopamine D_{2/3} receptor antagonist sulpiride. *Psychopharmacology (Berl)*. **202(1-3)**, 307-313 (2009).
3. Dong, E., Nelson, M., Grayson, D.R., *et al.* Clozapine and sulpiride but not haloperidol or olanzapine activate brain DNA demethylation. *Proc. Natl. Acad. Sci. U.S.A.* **105(36)**, 13614-13619 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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