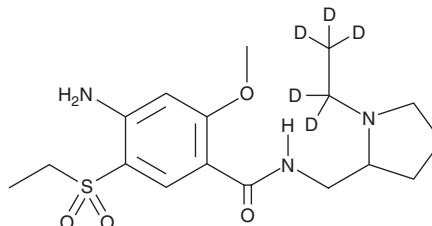


PRODUCT INFORMATION



Amisulpride-d₅ Item No. 30075

CAS Registry No.: 1216626-17-3
Formal Name: 4-amino-N-[[1-(ethyl-1,1,2,2,2-d₅)-2-pyrrolidinyl]methyl]-5-(ethylsulfonyl)-2-methoxy-benzamide
MF: C₁₇H₂₂D₅N₃O₄S
FW: 374.5
Chemical Purity: ≥95% (Amisulpride)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
Supplied as: A 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

Amisulpride-d₅ is intended for use as an internal standard for the quantification of amisulpride (Item No. 14619) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Amisulpride-d₅ is supplied as a solid. A stock solution may be made by dissolving the amisulpride-d₅ in the solvent of choice, which should be purged with an inert gas. Amisulpride-d₅ is slightly soluble in chloroform and methanol.

Description

Amisulpride is a dopamine D₂ and D₃ receptor antagonist (K_s = 3 and 3.5 nM, respectively).¹ It is also an antagonist of the serotonin (5-HT) receptor subtypes 5-HT_{2B}, 5-HT₇, and 5-HT_{7A} (K_s = 13, 11.5, and 135.5 nM, respectively). It is selective for these receptors over a panel of 39 additional receptors, ion channels, and transporters (K_s = >1,000 nM for all). Amisulpride increases 7-OH-DPAT-induced decreases in dopamine and acetylcholine release in electrically stimulated rat striatal slices (EC₅₀s = 2.2 and 1.2 nM, respectively).² It increases the levels of dopamine and the dopamine metabolite 3,4-dihydroxyphenylacetic acid (DOPAC) in rat striatum and nucleus accumbens when administered intraperitoneally at a dose of 10 mg/kg. Amisulpride decreases immobility time in the forced swim test in rats, as well as reduces stress-induced decreases in sucrose consumption in a rat model of depression induced by chronic mild stress.³

References

1. Abbas, A.I., Hedlund, P.B., Huang, X.P., *et al.* Amisulpride is a potent 5-HT₇ antagonist: Relevance for antidepressant actions in vivo. *Psychopharmacology (Berl.)* **205(1)**, 119-128 (2009).
2. Schoemaker, H., Claustre, Y., Fage, D., *et al.* Neurochemical characteristics of amisulpride, an atypical dopamine D₂/D₃ receptor antagonist with both presynaptic and limbic selectivity. *J. Pharmacol. Exp. Ther.* **280(1)**, 83-97 (1997).
3. Papp, M. and Wieronska, J. Antidepressant-like activity of amisulpride in two animal models of depression. *J. Psychopharmacol.* **14(1)**, 46-52 (2000).

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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