

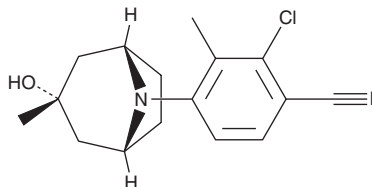
PRODUCT INFORMATION



ACP-105

Item No. 40146

CAS Registry No.: 899821-23-9
Formal Name: 2-chloro-4-[(3-endo)-3-hydroxy-3-methyl-8-azabicyclo[3.2.1]oct-8-yl]-3-methyl-benzonitrile
MF: C₁₆H₁₉ClN₂O
FW: 290.8
Purity: ≥95%
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

ACP-105 is supplied as a solid. A stock solution may be made by dissolving the ACP-105 in the solvent of choice, which should be purged with an inert gas. ACP-105 is soluble (≥10 mg/ml) in DMSO and slightly soluble (1-10 mg/ml) in ethanol.

Description

ACP-105 is a non-steroidal androgen receptor (AR) agonist.¹ It increases proliferation in a receptor selection and amplification technology (R-SAT) assay using NIH3T3 cells expressing AR or AR containing a tyrosine-to-alanine substitution at position 877 (AR^{T887A}; EC₅₀s = 1 and 0.4 nM, respectively). ACP-105 (1 mg/kg per day) inhibits radiation-induced decreases in contextual fear conditioning freezing time, indicating a reversal of memory deficits, in female mice.² It reduces the frequency of time spent in the external and intermediate zone in an open field test, indicating anxiolytic-like activity, in combination with the non-steroidal estrogen receptor β (ERβ) agonist AC-186 (Item No. 33526) in a gonadectomized 3xTg mouse model of Alzheimer's disease when administered at a dose of 10 mg/kg per day for four months.³ ACP-105 (10 mg/kg per day for seven months), in combination with AC-186, decreases amyloid-β (1-40) (Aβ₄₀) and Aβ₄₂ levels in the brains, as well as increases the levels of ARs and the amyloid-β degrading enzymes neprilysin and insulin-degrading enzyme in the hippocampus, of gonadectomized 3xTg mice.

References

- Schlienger, N., Lund, B.W., Pawlas, J., *et al.* Synthesis, structure-activity relationships, and characterization of novel nonsteroidal and selective androgen receptor modulators. *J. Med. Chem.* **52**(22), 7186-7191 (2009).
- Dayger, C., Villasana, L., Pfankuch, T., *et al.* Effects of the SARM ACP-105 on rotorod performance and cued fear conditioning in sham-irradiated and irradiated female mice. *Brain Res.* **1281**, 134-140 (2011).
- George, S., Petit, G.H., Gouras, G.K., *et al.* Nonsteroidal selective androgen receptor modulators and selective estrogen receptor β agonists moderate cognitive deficits and amyloid-β levels in a mouse model of Alzheimer's disease. *ACS Chem. Neurosci.* **4**(12), 1537-1548 (2013).

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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