

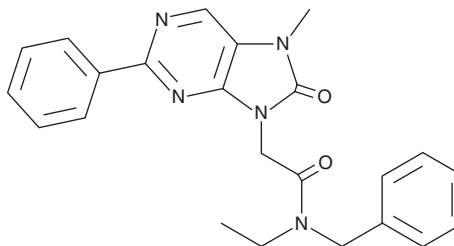
PRODUCT INFORMATION



AC-5216

Item No. 18522

CAS Registry No.: 226954-04-7
Formal Name: N-ethyl-7,8-dihydro-7-methyl-8-oxo-2-phenyl-N-(phenylmethyl)-9H-purine-9-acetamide
Synonyms: Emapunil, XBD-173
MF: C₂₃H₂₃N₅O₂
FW: 401.5
Purity: ≥98%
UV/Vis.: λ_{max}: 292 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

AC-5216 is supplied as a crystalline solid. A stock solution may be made by dissolving the AC-5216 in the solvent of choice, which should be purged with an inert gas. AC-5216 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of AC-5216 in these solvents is approximately 5 and 30 mg/ml, respectively.

AC-5216 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AC-5216 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AC-5216 has a solubility of approximately 0.05 mg/ml in a 1:20 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AC-5216 is a high affinity agonist of the 18 kDa translocator protein (TSPO, previously called the peripheral benzodiazepine receptor) that exhibits a K_i value of 0.297 nM in rat whole brain and IC₅₀ values of 2.73 and 3.04 nM, respectively, against human and rat glial TSPO.¹ AC-5216 produces anxiolytic and antidepressant effects in various animal models, without inducing benzodiazepine-like adverse effects.^{1,2}

References

1. Kita, A., Kohayakawa, H., Kinoshita, T., *et al.* Antianxiety and antidepressant-like effects of AC-5216, a novel mitochondrial benzodiazepine receptor ligand. *Brit. J. Pharmacol.* **142**, 1059-1072 (2004).
2. Qiu, Z.-K., Zhang, L.-M., Zhao, N., *et al.* Repeated administration of AC-5216, a ligand for the 18 kDa translocator protein, improves behavioral deficits in a mouse model of post-traumatic stress disorder. *Prog. Neuropsychopharmacol. Biol. Psychiatry* **45**, 40-46 (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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