

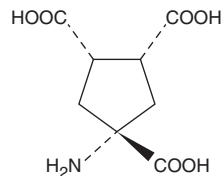
PRODUCT INFORMATION



ACPT-II

Item No. 78020

CAS Registry No.: 195209-04-2
Formal Name: 4-amino-1 α ,2 α ,4 β -cyclopentanetricarboxylic acid
MF: C₈H₁₁NO₆
FW: 217.2
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: Room temperature
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ACPT-II is supplied as a crystalline solid. A stock solution may be made by dissolving the ACPT-II in the solvent of choice, which should be purged with an inert gas. ACPT-II is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of ACPT-II in these solvents is approximately 0.25 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ACPT-II can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ACPT-II in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ACPT-II is a general competitive antagonist of metabotropic glutamate (mGlu) receptors. The K_B values for mGlu1a, mGlu2, and mGlu4a receptors are 115, 88, and 77 μ M, respectively.¹ It binds to the large extracellular domain called a Venus flytrap module, where agonists bind.² ACPT-II is a stereoisomer of the group III mGlu receptor-selective antagonist, ACPT-I.¹

References

1. Acher, F.C., Tellier, F.J., Azerad, R., *et al.* Synthesis and pharmacological characterization of aminocyclopentanetricarboxylic acids: New tools to discriminate between metabotropic glutamate receptor subtypes. *J. Med. Chem.* **40**, 3119-3129 (1997).
2. Bessis, A.-S., Ronard, P., Gaven, F., *et al.* Closure of the Venus flytrap module of mGlu8 receptor and the activation process: Insights from mutations converting antagonists into agonists. *Proc. Natl. Acad. Sci. USA* **99**(17), 11097-11102 (2002).

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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