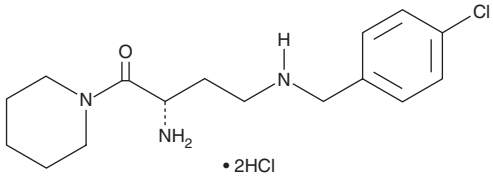
PRODUCT INFORMATION

UAMC 0039 (hydrochloride)

Item No. 15340

CAS Registry No.: 697797-51-6
Formal Name: (2S)-2-amino-4-[[(4-chlorophenyl)methyl] amino]-1-(1-piperidinyl)-1-butanone, dihydrochloride
MF: $C_{16}H_{24}ClN_3O \bullet 2HCl$
FW: 382.8
Purity: ≥98%
UV/Vis.: λ_{max}: 220 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

UAMC 0039 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the UAMC 0039 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. UAMC 0039 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of UAMC 0039 (hydrochloride) in these solvents is approximately 5, 14, and 2 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 UAMC 0039 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of UAMC 0039 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

UAMC 0039 is a potent inhibitor of dipeptidyl peptidase 2 (DPP-2; IC_{50} = 0.48 nM).[1] It also inhibits DPP-4 (IC_{50} = 165 µM). DPP-2 is thought to be involved in degradation of collagen, substance P, and some proline-containing neuropeptides.[1-3]

References

1. Senten, K., Van der Veken, P., De Meester, I., *et al.* γ-amino-substituted analogues of 1-[(S)-2,4-diaminobutanoyl]piperidine as highly potent and selective dipeptidyl peptidase II inhibitors. *J. Med. Chem.* **47(11)**, 2906-2916 (2004).
2. Andersen, K.J., and McDonald, J.K. Lysosomal heterogeneity of dipeptidyl peptidase II active on collagen-related peptides. *Ren. Physiol. Biochem.* **12(1)**, 32-40 (1989).
3. Mentlein, R., and Struckhoff, G. Purification of two dipeptidyl aminopeptidases II from rat brain and their action on proline-containing neuropeptides. *J. Neurochem.* **52(4)**, 1284-1293 (1989).

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