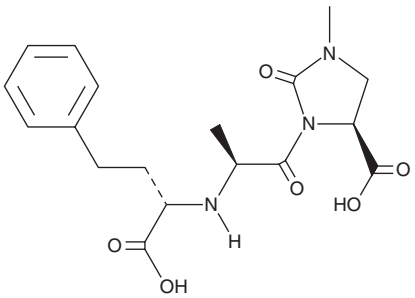
PRODUCT INFORMATION

Imidaprilat

Item No. 38046

CAS Registry No.: 89371-44-8
Formal Name: 3-[(2S)-2-[[(1S)-1-carboxy-3-phenylpropyl] amino]-1-oxopropyl]-1-methyl-2-oxo-4S-imidazolidinecarboxylic acid
Synonym: 6366A
MF: $C_{18}H_{23}N_3O_6$
FW: 377.4
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

Imidaprilat is supplied as a solid. A stock solution may be made by dissolving the imidaprilat in the solvent of choice, which should be purged with an inert gas. Imidaprilat is soluble in the organic solvent DMSO.

Description

Imidaprilat is an inhibitor of angiotensin-converting enzyme (ACE; IC_{50} = 2.6 nM) and an active metabolite of the prodrug imidapril (Item No. 18854).[1] It inhibits bradykinin-induced contractions in isolated guinea pig ileum (IC_{50} = 1.7 nM). Imidaprilat (50 nM) reduces adhesion induced by chemokine (C-C-) motif ligand 2 (CCL2) of THP-1 monocytes to TNF-α-activated human umbilical vein endothelial cells (HUVECs).[2] *In vivo*, imidaprilat (1 mg/kg) inhibits the angiotensin I-induced pressor response in unanesthetized normotensive rats.[1]

References

1. Kubo, M., Kato, J., Ochiai, T., *et al.* Pharmacological studies on (4S)-1-methyl-3-[(2S)-2-[N-((1S)-1-ethoxycarbonyl-3-phenylpropyl)amino] propionyl]-2-oxo-imidazolidine-4-carboxylic acid hydrochloride (TA-6366), a new ACE inhibitor: I. ACE inhibitory and anti-hypertensive activities. *Jpn. J. Pharmacol.* **53(2)**, 201-210 (1990).
2. Kojima, C., Kawakami, A., Takei, T., *et al.* Angiotensin-converting enzyme inhibitor attenuates monocyte adhesion to vascular endothelium through modulation of intracellular zinc. *J. Pharmacol. Exp. Ther.* **323(3)**, 855-860 (2007).

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