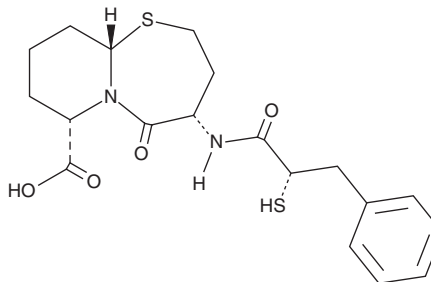


PRODUCT INFORMATION



Omapatrilat Item No. 31738

CAS Registry No.: 167305-00-2
Formal Name: (4S,7S,10aS)-octahydro-4-[[[(2S)-2-mercapto-1-oxo-3-phenylpropyl]amino]-5-oxo-7H-pyrido[2,1-b][1,3]thiazepine-7-carboxylic acid
Synonym: BMS-186716
MF: C₁₉H₂₄N₂O₄S₂
FW: 408.5
Purity: ≥90%
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

Omapatrilat is supplied as a crystalline solid. A stock solution may be made by dissolving the omapatrilat in the solvent of choice, which should be purged with an inert gas. Omapatrilat is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

Description

Omapatrilat is an orally bioavailable angiotensin-converting enzyme (ACE) and neprilysin (NEP) inhibitor (IC₅₀s = 1.7 and 5.3 nM, respectively, for the human enzymes).¹ It inhibits the pressor response induced by angiotensin I (Item No. 24737) in normotensive rats (ED₅₀ = 0.07 μmol/kg) and lowers mean arterial pressure (MAP) in sodium-depleted spontaneously hypertensive rats when administered at a dose of 30 μmol/kg.² Omapatrilat lowers MAP in rats when co-administered with bradykinin (Item No. 15539).³ It also increases tracheal plasma extravasation in a rat model of upper airway angioedema in a dose-dependent manner.⁴

References

1. Sulpizio, A.C., Pullen, M.A., Edwards, R.M., *et al.* Mechanism of vasopeptidase inhibitor-induced plasma extravasation: Comparison of omapatrilat and the novel neutral endopeptidase 24.11/angiotensin-converting enzyme inhibitor GW796406. *J. Pharmacol. Exp. Ther.* **315**(3), 1306-1313 (2005).
2. Robl, J.A., Sun, C.-Q., Stevenson, J., *et al.* Dual metalloprotease inhibitors: Mercaptoacetyl-based fused heterocyclic dipeptide mimetics as inhibitors of angiotensin-converting enzyme and neutral endopeptidase. *J. Med. Chem.* **40**(11), 1570-1577 (1997).
3. Fryer, R.M., Segreti, J., Banfor, P.N., *et al.* Effect of bradykinin metabolism inhibitors on evoked hypotension in rats: Rank efficacy of enzymes associated with bradykinin-mediated angioedema. *Br. J. Pharmacol.* **153**(5), 947-955 (2008).
4. Murray McKinnell, R., Fatheree, P., Choi, S.-K., *et al.* Discovery of TD-0212, an orally active dual pharmacology AT₁ antagonist and neprilysin inhibitor (ARNI). *ACS Med. Chem. Lett.* **10**(1), 86-91 (2018).

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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