

PRODUCT INFORMATION



BIM-46187 (hydrochloride)

Item No. 34531

CAS Registry No.: 2489449-03-6
Formal Name: (2R,2'R)-3,3'-dithiobis[2-amino-1-[(8S)-8-(cyclohexylmethyl)-5,6-dihydro-2-phenylimidazo[1,2-a]pyrazin-7(8H)-yl]-1-propanone, tetrahydrochloride

MF: C₄₄H₅₈N₈O₂S₂ • 4HCl
FW: 941.0

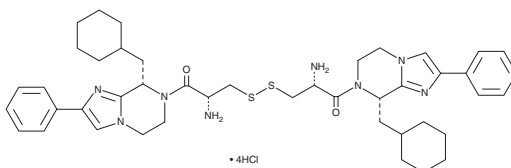
Purity: ≥98%

UV/Vis.: λ_{max}: 260 nm

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

BIM-46187 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the BIM-46187 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. BIM-46187 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BIM-46187 (hydrochloride) in these solvents is approximately 10 and 30 mg/ml, respectively.

BIM-46187 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BIM-46187 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BIM-46187 (hydrochloride) has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BIM-46187 is an inhibitor of heterotrimeric G-protein signaling.^{1,2} It inhibits signaling through Gα_i, Gα_s, and Gα_q in MZ7 cells but selectively inhibits Gα_q in HEK293 and CHO cells, indicating cell-dependent inhibition.¹ BIM-46187 (0.1-1 mg/kg) increases the paw withdrawal threshold to a mechanical stimulus in a rat model of carrageenan-induced hyperalgesia.³ It also reduces mechanical hyperalgesia in a rat model of neuropathic pain induced by chronic constriction injury (CCI) when administered at doses ranging from 0.3 to 3 mg/kg.

References

- Schmitz, A.-L., Schrage, R., Gaffal, E., *et al.* A cell-permeable inhibitor to trap Gα_q proteins in the empty pocket conformation. *Chem. Biol.* **21(7)**, 890-902 (2014).
- Zhang, H., Nielsen, A.L., and Strømgaard, K. Recent achievements in developing selective G_q inhibitors. *Med. Res. Rev.* **40(1)**, 135-157 (2019).
- Favre-Guilmond, C., Zeroual-Hide, H., Soulard, C., *et al.* The novel inhibitor of the heterotrimeric G-protein complex, BIM-46187, elicits anti-hyperalgesic properties and synergizes with morphine. *Eur. J. Pharmacol.* **594(1-3)**, 70-76 (2008).

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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