

PRODUCT INFORMATION



BQ-788

Item No. 31156

CAS Registry No.: 173326-37-9

Formal Name: N-[(*cis*-2,6-dimethyl-1-piperidiny)l carbonyl]-4-methyl-L-leucyl-1-(methoxycarbonyl)-D-tryptophyl-D-norleucine

MF: C₃₄H₅₁N₅O₇

FW: 641.8

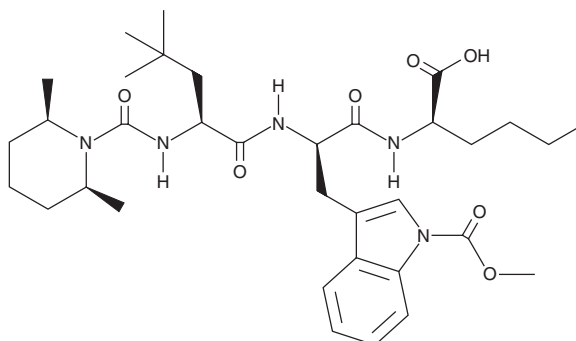
Purity: ≥90%

UV/Vis.: λ_{max}: 229 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

BQ-788 is supplied as a solid. A stock solution may be made by dissolving the BQ-788 in the solvent of choice, which should be purged with an inert gas. BQ-788 is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

Description

BQ-788 is a peptide endothelin type B (ET_B) receptor antagonist (IC₅₀ = 1.2 nM).¹ It is selective for ET_B over ET_A receptors (IC₅₀ = 280 nM), as well as angiotensin, calcitonin, or neuropeptide receptors at 10 μM. BQ-788 inhibits calcium mobilization induced by endothelin-1 (ET-1) in human G1rrardi heart cells (IC₅₀ = 0.54 nM) and vasoconstriction induced by the ET_B-selective agonist BQ-3020 in isolated rat pulmonary arteries (pA₂ = 8.4).² *In vivo*, BQ-788 (1 mg/kg, i.v.) inhibits ET-1-induced depressor responses and induces pressor responses in rats. It protects against laparotomy and surgical gut handling-induced inhibition of intestinal motility in rats.³ BQ-788 also attenuates delayed hypotension, vascular hyporeactivity to norepinephrine, and hepatocellular injury and dysfunction in a rat model of LPS-induced endotoxemia.⁴

References

1. Okada, M. and Nishikibe, M. BQ-788, a selective endothelin ET_B receptor antagonist. *Cardiovasc. Drug Rev.* **20**(1), 53-66 (2002).
2. Ishikawa, K., Ihara, M., Noguchi, K., *et al.* Biochemical and pharmacological profile of a potent and selective endothelin B-receptor antagonist, BQ-788. *Proc. Natl. Acad. Sci. USA* **91**(11), 4892-4896 (1994).
3. Ługowska-Umer, H., Umer, A., Kuziemski, K., *et al.* The protective effect of endothelin receptor antagonists against surgically induced impairment of gastrointestinal motility in rats. *J. Smooth Muscle Res.* **55**, 23-33 (2019).
4. Ruetten, H. and Thiernemann, C. Effect of selective blockade of endothelin ET_B receptors on the liver dysfunction and injury caused by endotoxaemia in the rat. *Br. J. Pharmacol.* **119**(3), 479-486 (1996).

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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