BQ-3020

Cat. No.:	HY-P1016
CAS No.:	143113-45-5
Molecular Formula:	$C_{96}H_{140}N_{20}O_{25}S$
Molecular Weight:	2006.32
Sequence:	Ac-Leu-Met-Asp-Lys-Glu-Ala-Val-Tyr-Phe-Ala-His-Leu-Asp-Ile-Ile-Trp
Sequence Shortening:	Ac-Acetyl-LMDKEAVYFAHLDIIW
Target:	Endothelin Receptor
Pathway:	GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

BIOLOGICAL ACTIVITY

Description	BQ-3020 is a selective endothelin receptor (ET_B receptor) agonist that displaces [^{125}I] ET-1 binding to ET_B receptors, with an IC_{50} value of 0.2 nM. BQ-3020 elicits vasoconstriction in the rabbit pulmonary artery. BQ-3020 makes relaxation of the pig urinary bladder neck and can be used for cardiovascular disease research[12].
IC_{50} & Target	ET_B 0.2 nM (IC_{50})
In Vitro	BQ-3020 (0.01–300 nM, 7 min), produced concentration-dependent relaxationso on PhE-precontracted urothelium-denuded strips[1]. BQ-3020 (0.01–200 nM, 20 min) causes potent dose-dependent vasoconstriction with EC_{50} values of 0.57nM in rabbit pulmonary arteries by inhibiting ETB receptors[2]. . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	BQ-3020 (3 mg/kg for i.h., single dose) attenuates cancer pain by approximately 50% up to 3 h post-injection compared to PBS-vehicle and contralateral injection in cancer pain mouse model[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Cancer pain mouse model [3]
Dosage:	3 mg/kg
Administration:	Injected subcutaneously at the site of the greatest tumor development
Result:	Attenuated cancer pain by approximately 50% up to 3 h post-injection compared to PBS-vehicle and contralateral injection

REFERENCES

[1]. Arteaga JL,et.al. Endothelin ET(B) receptors are involved in the relaxation to the pig urinary bladder neck. Neurourol Urodyn. 2012 Jun;31(5):688-94.

[2]. Ihara M, et.al. A novel radioligand [125I]BQ-3020 selective for endothelin (ETB) receptors. Life Sci. 1992;51(6):PL47-52.

[3]. Quang PN, et.al. Peripheral endothelin B receptor agonist-induced antinociception involves endogenous opioids in mice. Pain. 2010 May;149(2):254-262.

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