

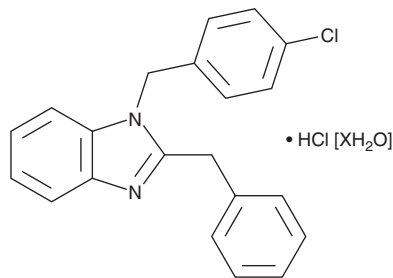
PRODUCT INFORMATION



Q94 (hydrochloride hydrate)

Item No. 32857

Formal Name: 1-[(4-chlorophenyl)methyl]-2-(phenylmethyl)-1H-benzimidazole, monohydrochloride, hydrate
MF: C₂₁H₁₇ClN₂ • HCl [XH₂O]
FW: 369.3
Purity: ≥98%
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

Q94 (hydrochloride hydrate) is supplied as a solid. A stock solution may be made by dissolving the Q94 (hydrochloride hydrate) in the solvent of choice, which should be purged with an inert gas. Q94 (hydrochloride hydrate) is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

Description

Q94 is a G_{αq} signaling-biased antagonist of proteinase-activated receptor 1 (PAR1; IC₅₀ = 916 nM).^{1,2} It inhibits increases in intracellular calcium mobilization induced by thrombin or a PAR1-activating peptide, but not a PAR2-activating peptide, in HMEC-1 cells when used at concentrations of 1 and 10 μM.¹ Q94 (5 mg/kg per day) decreases albuminuria in a mouse model of nephropathy induced by doxorubicin (Item No. 15007).³

References

1. Asteriti, S., Daniele, S., Porchia, F., *et al.* Modulation of PAR1 signalling by benzimidazole compounds. *Br. J. Pharmacol.* **167**(1), 80-94 (2012).
2. Deng, X., Mercer, P.F., Scotton, C.J., *et al.* Thrombin induces fibroblast CCL2/JE production and release via coupling of PAR₁ to G_{αq} and cooperation between ERK1/2 and Rho kinase signaling pathways. *Mol. Biol. Cell* **19**(6), 2520-2533 (2008).
3. Guan, Y., Nakano, D., Zhang, Y., *et al.* A protease-activated receptor-1 antagonist protects against podocyte injury in a mouse model of nephropathy. *J. Pharmacol. Sci.* **135**(2), 81-88 (2017).

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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