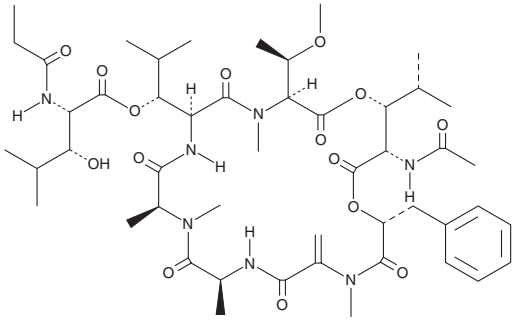
PRODUCT INFORMATION

FR900359 (solution)

Item No. 46788



CAS Registry No.: 107530-18-7
Formal Name: (3R)-N-acetyl-3-hydroxy-L-leucyl-(αR)-α-hydroxybenzenepropanoyl-2,3-didehydro-N-methylalanyl-L-alanyl-N-methyl-L-alanyl-(3R)-3-[[(2S,3R)-3-hydroamino]pentyl]oxy]-L-leucyl-N,O-dimethylxy-4-methyl-1-oxo-2-[(1-oxopropyl)-L-threonine, (7→1)-lactone
Synonym: UBO-QIC
MF: $C_{49}H_{75}N_7O_{15}$
FW: 1,002.2
Purity: ≥95%
Supplied as: A 1 mM solution in DMSO
Storage: -20°C
Stability: ≥2 years
Item Origin: Microbial fermentation

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

FR900359 (solution) is supplied as a solution in DMSO. To change the solvent, simply evaporate the DMSO under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as chloroform purged with an inert gas can be used. FR900359 (solution) is sparingly soluble (1-10 mg/ml) in chloroform.

Description

FR900359 is a cyclic depsipeptide that has been found in *A. crenata* and is an inhibitor of $G\alpha_q$, $G\alpha_{11}$, and $G\alpha_{14}$ (IC_{50}s = 13.18, 10.47, and 10 nM, respectively).[1,2] It is selective for these Gα subunits over a panel of additional Gα subunits, including $G\alpha_s$ and $G\alpha_i$, in bioluminescence resonance energy transfer (BRET) assays at 1 µM.[3] FR900359 (1 µM) induces relaxation of precontracted isolated mouse tail arteries and inhibits platelet aggregation induced by U-46619 (Item No. 16450) in washed isolated human platelets cultured with aspirin (Item No. 70260) in a concentration-dependent manner.[3,4] It induces cell cycle arrest at the G_1 phase and reduces proliferation and serum-induced migration of B16 melanoma cells.[3] FR900359 (2.5 µg/animal) inhibits airway hyperresponsiveness in a mouse model of house dust mite-induced allergic asthma.[5]

References

1. Fujioka, M., Koda, S., Morimoto, Y., *et al.* Structure of FR900359, a cyclic depsipeptide from *Ardisia crenata* sims. *J. Org. Chem.* **53(12)**, 2820–2825 (1988).
2. Kukkonen, J.P. G-protein inhibition profile of the reported $G_{q/11}$ inhibitor UBO-QIC. *Biochem. Biophys. Res. Commun.* **469(1)**, 101-107 (2016).
3. Schrage, R., Schmitz, A.-L., Gaffal, E., *et al.* The experimental power of FR900359 to study G_q-regulated biological processes. *Nat. Commun.* **6**, 10156 (2015).
4. Inamdar, V., Patel, A., Manne, B.J., *et al.* Characterization of UBO-QIC as a $G_{\alpha q}$ inhibitor in platelets. *Platelets* **26(8)**, 771-778 (2015).
5. Matthey, M., Roberts, R., Seidinger, A., *et al.* Targeted inhibition of G_q signaling induces airway relaxation in mouse models of asthma. *Sci. Transl. Med.* **9(407)**, eaag2288 (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.

WARRANTY AND LIMITATION OF REMEDY
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