

# PRODUCT INFORMATION



FR900359

Item No. 33666

CAS Registry No.: 107530-18-7

Formal Name: (3R)-N-acetyl-3-hydroxy-L-leucyl-( $\alpha$ R)- $\alpha$ -hydroxybenzenepropanoyl-2,3-didehydro-N-methylalanyl-L-alanyl-N-methyl-L-alanyl-(3R)-3-[[[(2S,3R)-3-hydroxy-4-methyl-1-oxo-2-[(1-oxopropyl)amino]pentyl]oxy]-L-leucyl-N,O-dimethyl-L-threonine, (7 $\rightarrow$ 1)-lactone

Synonym: UBO-QIC

MF: C<sub>49</sub>H<sub>75</sub>N<sub>7</sub>O<sub>15</sub>

FW: 1,002.2

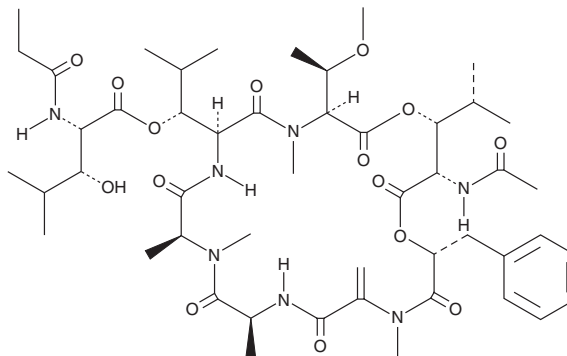
Purity:  $\geq$ 95%

Supplied as: A solution in acetonitrile

Storage: -20°C

Stability:  $\geq$ 2 years

Item Origin: Bacteria



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

## Laboratory Procedures

FR900359 is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as chloroform may be used.

## 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<sub>50</sub>s = 13.18, 10.47, and 10 nM, respectively).<sup>1,2</sup> It is selective for these G $\alpha$  subunits over a panel of additional G $\alpha$  subunits, including G $\alpha_s$  and G $\alpha_i$ , in bioluminescence resonance energy transfer (BRET) assays at 1  $\mu$ M.<sup>3</sup> FR900359 (1  $\mu$ M) 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.<sup>3,4</sup> It induces cell cycle arrest at the G<sub>1</sub> phase and reduces proliferation and serum-induced migration of B16 melanoma cells.<sup>3</sup> FR900359 (2.5  $\mu$ g/animal) inhibits airway hyperresponsiveness in a mouse model of house dust mite-induced allergic asthma.<sup>5</sup>

## 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 $\alpha_{q/11}$  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 Gq-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 $\alpha_q$  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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