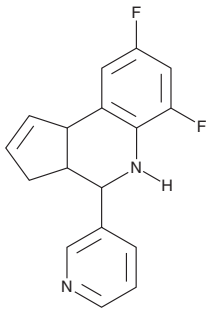
PRODUCT INFORMATION

Golgicide A

Item No. 18430

CAS Registry No.:	1005036-73-6
Formal Name:	6,8-difluoro-3a,4,5,9b-tetrahydro-4-(3-pyridinyl)-3H-cyclopenta[c]quinoline
Synonym:	GCA
MF:	$C_{17}H_{14}F_2N_2$
FW:	284.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 241, 294 nm
Supplied as:	A crystalline 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

Golgicide A is supplied as a crystalline solid. A stock solution may be made by dissolving the golgicide A in the solvent of choice, which should be purged with an inert gas. Golgicide A is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of golgicide A in these solvents is approximately 1, 10, and 30 mg/ml, respectively.

Golgicide A is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, golgicide A should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Golgicide A has a solubility of approximately 0.1 mg/ml in a 1:8 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ADP-ribosylation factor 1 (Arf1), when activated by guanine nucleotide exchange factors (ArfGEFs), plays a key role in regulating secretory traffic and membrane transport within the Golgi of eukaryotic cells. Golgicide A is a reversible inhibitor of the brefeldin A (Item No. 11861)-resistant, *cis*-Golgi ArfGEF, GBF1 (IC_{50} = 3.3 µM).[1] Inhibition of GBF1 *via* golgicide A can result in rapid dissociation of COPI vesicle coat protein from Golgi membranes and disassembly of the Golgi and *trans*-Golgi network.[1] Golgicide A does not affect the association of the adaptor protein, AP-1, or the Arf1-binding protein, GCA3, with the *trans*-Golgi network nor does it interfere with the activity of the ArfGEFs, BIG1 or 2.[1] Golgicide A can arrest the secretion of soluble and membrane-associated proteins at the ER-Golgi intermediate compartment, as well as prevent endocytic transport of Shiga toxin to the *trans*-Golgi network.[1]

Reference

1. Saenz, J.B., Sun, W.J., Chang, J.W., *et al.* Golgicide A reveals essential roles for GBF1 in Golgi assembly and function. *Nat. Chem. Biol.* **5(3)**, 157-165 (2009).

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