PRODUCT INFORMATION

NKH477 (hydrochloride)
Item No. 11214

CAS Registry No.: 138605-00-2
Formal Name: (3R,4aR,5S,6S,6aS,10S,10aR,10bS)-
5-(acetyloxy)-3-ethenylododecahydro-
10,10b-dihydroxy-3,4a,7,7,10a-
pentamethyl-1-b-alanine, N,N-
dimethyl-oxo-1H-naphtho[2,1-b]pyran-
6-yl ester, monohydrochloride
Synonyms: Adehl, Colforsin Dapropate,
Colforsin Daropate
MF: C_{27}H_{43}NO_{8} • HCl
FW: 546.1
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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

Laboratory Procedures

NKH477 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the NKH477 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. NKH477 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of NKH477 (hydrochloride) in these solvents is approximately 2.5, 30, and 20 mg/ml, respectively.

NKH477 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NKH477 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. NKH477 (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Forskolin (Item No. 11018) is a potent activator of adenyly cyclase, but it is sparingly soluble in aqueous solutions. NKH477 is a water-soluble analog of forskolin which has both inotropic and vasodilator effects when administered intravenously.\(^1\) Like forskolin, NKH477 activates adenylyl cyclases without altering the activity of phosphodiesterases or sodium/potassium ATPases.\(^1\) This compound stimulates cardiac (type V) adenylyl cyclase more potently than other isoforms.\(^4\) NKH477 relaxes guinea pig tracheal smooth muscle precontracted with histamine with an EC\(_{50}\) value of 32.6 nM.\(^3\)

References