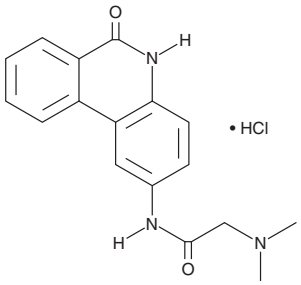
PRODUCT INFORMATION

PJ-34 (hydrochloride)

Item No. 14440

CAS Registry No.: 344458-15-7
Formal Name: N-(5,6-dihydro-6-oxo-2-phenanthridinyl)-2-(dimethylamino)-acetamide, monohydrochloride
MF: $C_{17}H_{17}N_3O_2 \bullet HCl$
FW: 331.8
Purity: ≥98%
UV/Vis.: λ_{max}: 240, 251, 258, 336 nm
Supplied as: A white to light brown powder
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

PJ-34 (hydrochloride) is supplied as a white to light brown powder. A stock solution may be made by dissolving the PJ-34 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. PJ-34 (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PJ-34 (hydrochloride) in these solvents is approximately 1 and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PJ-34 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PJ-34 (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The poly(ADP-ribose) polymerases (PARPs) form a family of enzymes with roles in DNA repair and apoptosis, particularly in response to reactive oxygen and nitrogen species.[1,2] PJ-34 is an inhibitor of PARPs which can be used in cells or in animals.[3-5] It binds and inhibits the PARP tankyrase1 (IC_{50} = 1 µM).[6] PJ-34 also inhibits matrix metalloproteinase-2 when used at higher concentrations (IC_{50} = 56 µM).[7]

References

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5. Radnai, B., Antus, C., Racz, B., *et al. Mol. Cancer* **11(34)**, (2012).
6. Kirby, C.A., Cheung, A., Fazal, A., *et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun.* **68**, 115-118 (2012).
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