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# Produktinformation

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


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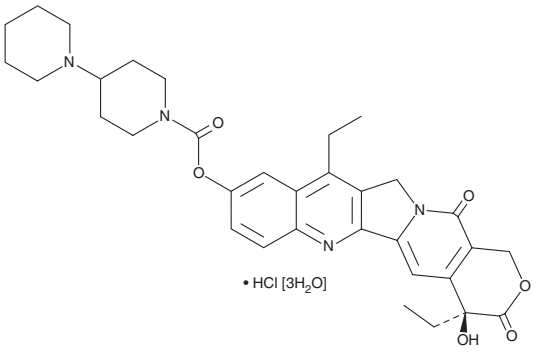
# PRODUCT INFORMATION

## Irinotecan (hydrochloride hydrate)

*Item No. 14180*

**CAS Registry No.:** 136572-09-3
**Formal Name:** [1,4'-bipiperidine]-1'-carboxylic acid, (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b] quinolin-9-yl ester, monohydrochloride, trihydrate
**MF:** $C_{33}H_{38}N_4O_6 \bullet HCl\ [3H_2O]$
**FW:** 677.2
**Purity:** ≥98%
**UV/Vis.:** $\lambda_{max}$: 221, 356, 360 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

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

Irinotecan (hydrochloride hydrate) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, irinotecan (hydrochloride hydrate) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Irinotecan (hydrochloride hydrate) 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

Irinotecan, a derivative of the alkaloid camptothecin (Item No. 11694), functions as a prodrug that is converted by tissue carboxylesterase to 7-ethyl-10-hydroxycamptothecin, a potent inhibitor of DNA topoisomerase I.[1,2] Its action is terminated by glucuronidation by UDP glucuronosyl transferase 1A1.[3,4] Irinotecan demonstrates a broad spectrum of antitumor activity against metastatic colorectal cancer, small cell lung cancer, and several other solid tumors and has proven useful in radiation treatment of tumors by sensitizing tissue to radiation damage.[1,2]

### References


1. Rothenberg, M.L. Topoisomerase I inhibitors: Review and update. *Ann. Oncol.* **8(9),** 837-855 (1997).
2. Dancey, J. and Eisenhauer, E.A. Current perspectives on camptothecins in cancer treatment. *Br. J. Cancer* **74(3)**, 327-338 (1996).
3. Mathijssen, R.H.J., van Alphen, R.J., Verweij, J., *et al.* Clinical pharmacokinetics and metabolism of irinotecan (CPT-11). *Clin. Cancer Res.* **7(8)**, 2182-2194 (2001).
4. Ma, M.K. and McLeod, H.L. Lessons learned from the irinotecan metabolic pathway. *Curr. Med. Chem.* **10(1)**, 41-49 (2003).





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