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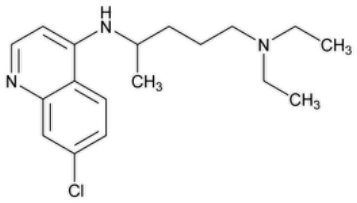
Chloroquine



$C_{18}H_{26}ClN_3$ 319.87

1,4-Pentanediamine, N^4-(7-chloro-4-quinolinyl)-N^1,N^1-diethyl-;

7-Chloro-4-[[4-(diethylamino)-1-methylbutyl]amino]quin oline CAS RN®: 54-05-7; UNII: 886U3H6UFF.

DEFINITION

Chloroquine contains NLT 98.0% and NMT 102.0% of chloroquine ($C_{18}H_{26}ClN_3$), calculated on the dried basis.

IDENTIFICATION

• **A. Identification—Organic Nitrogenous Bases ⟨181⟩**

Standard solution: Proceed as directed in the chapter except use chloroform instead of carbon disulfide in the test.

Sample solution: 8.75 mg/mL of chloroquine prepared as follows. Dissolve 35 mg of Chloroquine in 4 mL of chloroform. Pass through a dry filter.

Analysis: Determine the absorption of the *Standard solution* and *Sample solution* without delay in 1-mm cells between 7 and 15 µm, using chloroform in a matched cell as a blank.

Acceptance criteria: The IR absorption spectrum of the *Sample solution* so obtained exhibits maxima only at the same wavelengths as that of the *Standard solution*.

Change to read:

• **B. ▲Spectroscopic Identification Tests ⟨197⟩, *Ultraviolet-Visible Spectroscopy*: 197U▲** (CN 1-May-2020)

Medium: Dilute hydrochloric acid (1 in 1000)

Sample solution: 10 µg/mL

Acceptance criteria: The ratio A_{343}/A_{329} is 1.00–1.15.

ASSAY

• **Procedure**

Sample solution: Dissolve 250 mg of Chloroquine in 50 mL of glacial acetic acid. Add crystal violet TS.

Analysis: Titrate with 0.1 N perchloric acid VS. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 15.99 mg of chloroquine ($C_{18}H_{26}ClN_3$).

Acceptance criteria: 98.0%–102.0% on the dried basis

IMPURITIES

• **Residue on Ignition ⟨281⟩:** NMT 0.2%

SPECIFIC TESTS

• **Melting Range or Temperature ⟨741⟩:** 87°–92°

• **Loss on Drying ⟨731⟩**

Analysis: Dry a sample at 105° for 2 h.

Acceptance criteria: NMT 2.0%

ADDITIONAL REQUIREMENTS

• **Packaging and Storage:** Preserve in well-closed containers. Store at 25°, excursions permitted between 15° and 30°.

• **USP Reference Standards ⟨11⟩**

USP Chloroquine Phosphate RS

Auxiliary Information - Please check for your question in the FAQs before contacting USP.

Topic/Question	Contact	Expert Committee
CHLOROQUINE	Documentary Standards Support	SM12020 Small Molecules 1

Chromatographic Database Information: Chromatographic Database

Most Recently Appeared In:
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