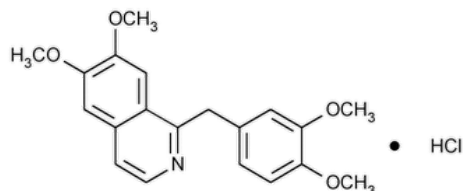


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Papaverine Hydrochloride



$C_{20}H_{21}NO_4 \cdot HCl$ 375.85

Isoquinoline, 1-[(3,4-dimethoxyphenyl)methyl]-6,7-dimethoxy-, hydrochloride.

6,7-Dimethoxy-1-veratrylisoquinoline hydrochloride CAS RN®: 61-25-6; UNII: 23473EC6BQ.

» Papaverine Hydrochloride contains not less than 98.5 percent and not more than 100.5 percent of $C_{20}H_{21}NO_4 \cdot HCl$, calculated on the dried basis.

Packaging and storage—Preserve in tight, light-resistant containers. Store at 25°, excursions permitted between 15° and 30°.

USP Reference Standards (11)—

[USP Papaverine Hydrochloride RS](#)

Completeness of solution—A 1 in 15 solution in chloroform is clear and free from undissolved solid.

Identification—

Change to read:

A: ▲ [Spectroscopic Identification Tests \(197\)](#), [Infrared Spectroscopy: 197K](#) ▲ (CN 1-May-2020) ·

Change to read:

B: ▲ [Spectroscopic Identification Tests \(197\)](#), [Ultraviolet-Visible Spectroscopy: 197U](#) ▲ (CN 1-May-2020)

Solution: 2.5 µg per mL.

Medium: 0.1 N hydrochloric acid.

Absorptivities at 251 nm, calculated on the dried basis, do not differ by more than 3.0%.

C: A solution (1 in 50) responds to the tests for [Chloride \(191\)](#).

pH (791): between 3.0 and 4.5, in a solution (1 in 50).

Loss on drying (731)—Dry it at 105° for 2 hours: it loses not more than 0.5% of its weight.

Residue on ignition (281): not more than 0.1%.

Limit of cryptopine, thebaine, or other organic impurities—Dissolve 50 mg in 2 mL of sulfuric acid in a small test tube: the resulting solution is not more yellow-brown in color than *Matching Fluid S* (see [Readily Carbonizable Substances Test \(271\)](#)), and it is not more pink than a standard prepared, in equal volume, by diluting 3.0 mL of 0.1 N potassium permanganate with water to 1000 mL.

Assay—Dissolve about 700 mg of Papaverine Hydrochloride, accurately weighed, in 80 mL of glacial acetic acid; add 10 mL of mercuric acetate TS and 1 drop of crystal violet TS; and titrate with 0.1 N perchloric acid VS to a blue-green endpoint. Perform a blank determination, and make any necessary correction. Each mL of 0.1 N perchloric acid is equivalent to 37.59 mg of $C_{20}H_{21}NO_4 \cdot HCl$.

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
PAPAVERINE HYDROCHLORIDE	Documentary Standards Support	SM22020 Small Molecules 2

Topic/Question	Contact	Expert Committee
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM22020 Small Molecules 2

Chromatographic Database Information: [Chromatographic Database](#)

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