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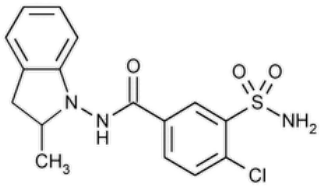
Indapamide



$C_{16}H_{16}ClN_3O_3S$ 365.83

Benzamide, 3-(aminosulfonyl)-4-chloro-*N*-(2,3-dihydro-2-methyl-1*H*-indol-1-yl)-.

4-Chloro-*N*-(2-methyl-1-indolinyl)-3-sulfamoylbenzamide CAS RN®: 26807-65-8; UNII: F089I0511L.

» Indapamide contains not less than 98.0 percent and not more than 101.0 percent of $C_{16}H_{16}ClN_3O_3S$, calculated on the dried basis.

Packaging and storage—Preserve in well-closed containers.

USP Reference standards ⟨11⟩—

USP Indapamide RS

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: 5 µg per mL.

Medium: methanol.

Loss on drying ⟨731⟩—Dry it at 105° for 4 hours: it loses not more than 3.0% of its weight.

Residue on ignition ⟨281⟩: not more than 0.1%.

Chromatographic purity—[**Caution**—*Minimize exposure to light while weighing the samples and spotting on the thin-layer chromatographic plate. Use low-actinic glassware or wrap the glassware with aluminum foil and protect all the chromatographic solutions from light. Place the chromatographic tanks in a dark room or cover them with aluminum foil during the development. The paperlined chamber should be saturated with solvent vapor for 1 hour before development of the plates.*]

Standard preparations—Dissolve USP Indapamide RS in methanol, and mix to obtain *Standard preparation A* having a known concentration of 0.30 mg per mL. Dilute quantitatively with methanol to obtain *Standard preparation B* and *Standard preparation C* containing 0.15 mg and 0.075 mg of USP Indapamide RS per mL, respectively.

Test preparation—Dissolve an accurately weighed quantity of Indapamide in methanol, and dilute quantitatively with methanol to obtain a solution containing 30 mg per mL.

Procedure—Apply separately 10 µL of the *Test preparation* and 10 µL of each *Standard preparation* to a suitable thin-layer chromatographic plate (see *Chromatography* ⟨621⟩) coated with a 0.25-mm layer of chromatographic silica gel mixture. Position the plate in a chromatographic chamber, and develop the chromatograms in a solvent system consisting of a mixture of toluene, ethyl acetate, and glacial acetic acid (70:30:1) until the solvent front has moved about three-fourths of the length of the plate. Remove the plate from the developing chamber, mark the solvent front, and dry under a current of air. Examine the plate under short-wavelength UV light, and compare the intensities of any secondary spots observed in the chromatogram of the *Test preparation* with those of the principal spots in the chromatograms of the *Standard preparations:* no secondary spot from the chromatograms of the *Test preparation* is larger or more intense than the principal spot obtained from *Standard preparation B* (0.5%), and the sum of the intensities of the secondary spots obtained from the *Test preparation* corresponds to not more than 2.0%.

Assay—[Note—Where peak responses are indicated, use peak areas.]

Mobile phase—Prepare a filtered and degassed mixture consisting of water, acetonitrile, methanol, and glacial acetic acid (650:175:175:1). Make adjustments if necessary (see *System Suitability* under *Chromatography ⟨621⟩*).

Internal standard solution—Dissolve a suitable quantity of *p*-chloroacetanilide in methanol to obtain a solution having a concentration of about 5.0 mg per mL.

Standard preparation—Dissolve an accurately weighed quantity of USP Indapamide RS in *Internal standard solution*, and dilute quantitatively with *Mobile phase* to obtain a solution having a known concentration of about 1.0 mg per mL of the Reference Standard and about 0.25 mg per mL of the internal standard.

Assay preparation—Transfer about 100 mg of Indapamide, accurately weighed, to a 100-mL volumetric flask, dissolve in 5.0 mL of *Internal standard solution*, dilute with *Mobile phase* to volume, and mix.

Chromatographic system (see *Chromatography ⟨621⟩*)—The liquid chromatograph is equipped with a 254-nm detector and a 4-mm × 30-cm column that contains packing L1. The flow rate is about 2 mL per minute. Chromatograph the *Standard preparation*, and record the peak responses as directed under *Procedure:* the resolution, *R,* between any peak of interest and any adjacent peak is not less than 2.0, the tailing factor for the analyte peak is not more than 2.0, and the relative standard deviation for replicate injections is not more than 2.0%.

Procedure—Separately inject equal volumes (about 5 µL) of the *Standard preparation* and the *Assay preparation* into the chromatograph, record the chromatograms, and measure the responses for the major peaks. The retention time, relative to indapamide, is about 0.65 for *p*-chloroacetanilide. Calculate the quantity, in mg, of $C_{16}H_{16}ClN_3O_3S$ in the portion of Indapamide taken by the formula:

$$100C(R_U/R_S)$$

in which C is the concentration, in mg per mL, of USP Indapamide RS in the *Standard preparation*; and R_U and R_S are the ratios of the peak area of indapamide to the peak area of internal standard in the *Assay preparation* and the *Standard preparation*, respectively.

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

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

Chromatographic Database Information: Chromatographic Database

Most Recently Appeared In:
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