Fluphenazine Enanthate

エナント酸フルフェナジン

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\text{C}_{29}\text{H}_{38}\text{F}_3\text{N}_3\text{O}_2\text{S}: \text{549.69}
\]

2-(4-[[3-[2-(Trifluoromethyl)phenothiazin-10-yl]propyl]piperazin-1-yl]ethyl)heptanoate [2746-81-8]

Fluphenazine Enanthate, when dried, contains not less than 98.5% of C\text{29}H\text{38}F\text{3}N\text{3}O\text{2}S.

**Description** Fluphenazine Enanthate is a light yellow to yellowish orange viscous liquid. It is generally clear, and can be opaque by producing crystals.

It is freely soluble in methanol and in diethyl ether, soluble in acetic acid (100) and in ethanol (95), and practically insoluble in water.

**Identification** (1) Prepare the test solution with 0.01 g of Fluphenazine Enanthate as directed under the Oxygen Flask Combustion Method, using a mixture of 0.5 mL of 0.01 mol/L sodium hydroxide TS and 20 mL of water as the absorbing liquid; the test solution responds to the Qualitative Tests for fluoride.

(2) Dissolve 2 mg of Fluphenazine Enanthate in 200 mL of a solution of hydrochloric acid in methanol (17 in 2000). Determine the absorption spectrum of the solution as directed under the Ultraviolet-visible Spectrophotometry, and compare the spectrum with the Reference Spectrum: both spectra exhibit similar intensities of absorption at the same wavelengths.

(3) Determine the infrared absorption spectrum of Fluphenazine Enanthate as directed in the liquid firm method under the Infrared Spectrophotometry, and compare the spectrum with the Reference Spectrum: both spectra exhibit similar intensities of absorption at the same wave numbers.

**Purity** (1) Heavy metals—Proceed with 1.0 g of Fluphenazine Enanthate according to Method 2, and perform the test. Prepare the control solution with 3.0 mL of Standard Lead Solution (not more than 30 ppm).

(2) Related substances—Dissolve 0.25 g of Fluphenazine Enanthate in 10 mL of methanol, and use this solution as the sample solution. Pipet 1 mL of the sample solution, add methanol to make exactly 100 mL, and use this solution as the standard solution. Perform the test with these solutions as directed under the Thin-layer Chromatography. Spot 20 \(\mu\)L each of the sample solution and the standard solution on a plate of silica gel with fluorescent indicator for thin-layer chromatography. Develop the plate with a mixture of acetone, hexane and ammonia solution (28) (16:6:1) to a distance of about 15 cm, and air-dry the plate. Examine under ultraviolet light (main wavelength: 254 nm): the spots other than the principal spot from the sample solution are not more intense than the spot from the standard solution. Then spray evenly diluted sulfuric acid (1 in 2) on the plate: the spots other than the principal spot from the sample solution are not more intense than the spot from the standard solution.

**Loss on drying** Not more than 1.0% (1 g, in vacuum, 60°C, 3 hours).

**Residue on ignition** Not more than 0.20% (1 g).

**Assay** Weigh accurately about 0.5 g of Fluphenazine Enanthate, previously dried, dissolve in 50 mL of acetic acid (100), and titrate with 0.1 mol/L perchloric acid VS (indicator: 2 drops of crystal violet TS). Perform a blank determination, and make any necessary correction.

Each mL of 0.1 mol/L perchloric acid VS = 27.485 mg of C\text{29}H\text{38}F\text{3}N\text{3}O\text{2}S

**Containers and storage** Containers—Tight containers. Storage—Light-resistant.

Flurazepam

フルラゼパム

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\text{C}_{21}\text{H}_{26}\text{ClF}_{6}\text{N}_3\text{O}: \text{387.88}
\]

7-Chloro-1-[2-(diethylamino)ethyl]-5-(2-fluorophenyl)-1,3-dihydro-2H-1,4-benzodiazepin-2-one [176/17-23-1]

Flurazepam, when dried, contains not less than 99.0% of C\text{21}H\text{26}ClF\text{6}N\text{3}O.

**Description** Flurazepam occurs as white to light yellow crystals or crystalline powder.

It is very soluble in chloroform, freely soluble in methanol, in ethanol (95), in acetic anhydride and in diethyl ether, and practically insoluble in water.

**Identification** (1) Dissolve 0.01 g of Flurazepam in 3 mL of sulfuric acid: the solution shows a greenish yellow fluorescence under ultraviolet light (main wavelength: 365 nm).

(2) Dissolve 0.01 g of Flurazepam in 3 mL of citric acid-acetic acid TS, and heat in a water bath for 4 minutes: a dark red color develops.

(3) Prepare the test solution with 0.01 g of Flurazepam as directed under the Oxygen Flask Combustion Method, using a mixture of 0.5 mL of 0.01 mol/L sodium hydroxide TS and 20 mL of water as an absorbing liquid: the test solution responds to the Qualitative Tests (2) for fluoride.

(4) Determine the absorption spectrum of a solution of Flurazepam in methanol (1 in 100,000) as directed under the Ultraviolet-visible Spectrophotometry, and compare the spectrum with the Reference Spectrum 1: both spectra exhibit similar intensities of absorption at the same wavelengths. Separately, determine the absorption spectrum of a