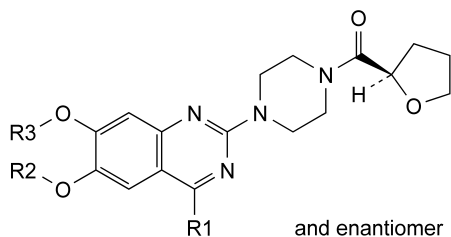
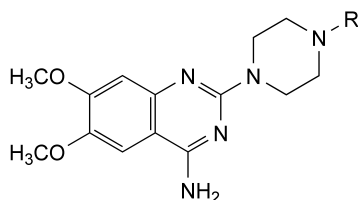
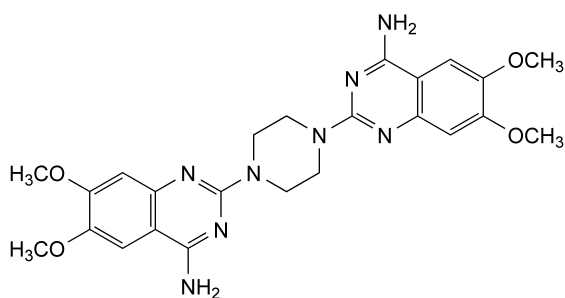


A. 2-chloro-6,7-dimethoxyquinazolin-4-amine,

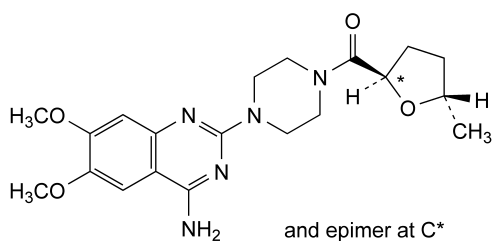
B. R1 = OH, R2 = R3 = CH₃: 1-(4-hydroxy-6,7-dimethoxyquinazolin-2-yl)-4-[(2*RS*)-tetrahydrofuran-2-yl]carbonylpiperazine,G. R1 = NH₂, R2 = H, R3 = CH₃: 1-(4-amino-6-hydroxy-7-methoxyquinazolin-2-yl)-4-[(2*RS*)-tetrahydrofuran-2-yl]carbonylpiperazine,H. R1 = NH₂, R2 = CH₃, R3 = H: 1-(4-amino-7-hydroxy-6-methoxyquinazolin-2-yl)-4-[(2*RS*)-tetrahydrofuran-2-yl]carbonylpiperazine,

C. R = H: 6,7-dimethoxy-2-(piperazin-1-yl)quinazolin-4-amine,

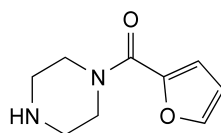
D. R = CHO: 1-(4-amino-6,7-dimethoxyquinazolin-2-yl)-4-formylpiperazine,

F. R = CO-[CH₂]₄-OH: 1-(4-amino-6,7-dimethoxyquinazolin-2-yl)-4-(5-hydroxypentanoyl)piperazine,J. R = CO-CH(OH)-CH₂-CH₂-CH₃: 1-(4-amino-6,7-dimethoxyquinazolin-2-yl)-4-[(2*RS*)-2-hydroxypentanoyl]piperazine,

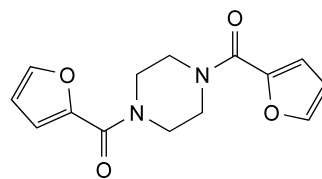
E. 2,2'-(piperazine-1,4-diyl)bis(6,7-dimethoxyquinazolin-4-amine),

I. 1-(4-amino-6,7-dimethoxyquinazolin-2-yl)-4-[(2*RS*,5*S*)-5-methyltetrahydrofuran-2-yl]carbonylpiperazine,

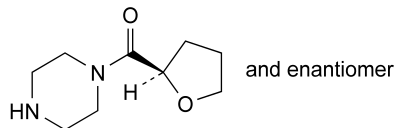
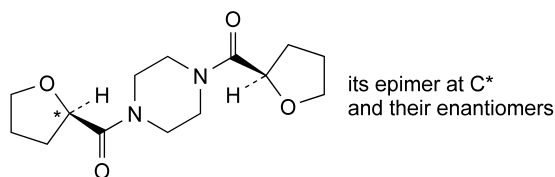
K. prazosin,



L. 1-(furan-2-ylcarbonyl)piperazine,



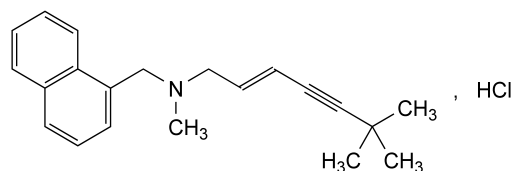
M. 1,4-bis(furan-2-ylcarbonyl)piperazine,

N. 1-[(2*RS*)-tetrahydrofuran-2-yl]carbonylpiperazine,

O. 1,4-bis[(tetrahydrofuran-2-yl)carbonyl]piperazine.

01/2008:1734
corrected 6.0**TERBINAFINE HYDROCHLORIDE**

Terbinafini hydrochloridum

C₂₁H₂₆ClN
[78628-80-5]M_r 327.9**DEFINITION**(2*E*)-*N*,6,6-Trimethyl-*N*-(naphthalen-1-ylmethyl)hept-2-en-4-yn-1-amine hydrochloride.*Content*: 99.0 per cent to 101.0 per cent (dried substance).**CHARACTERS***Appearance*: white or almost white powder.*Solubility*: very slightly or slightly soluble in water, freely soluble in anhydrous ethanol and in methanol, slightly soluble in acetone.**IDENTIFICATION**

A. Infrared absorption spectrophotometry (2.2.24).

Comparison: terbinafine hydrochloride CRS.B. It gives reaction (a) of chlorides (2.3.1) using *anhydrous ethanol R* as solvent.**TESTS****Related substances.** Liquid chromatography (2.2.29).*Prepare the solutions protected from light.**Solvent mixture*: methanol R1, water R, acetonitrile R1 (25:25:50 V/V/V).

Test solution. Dissolve 20.0 mg of the substance to be examined in the solvent mixture and dilute to 20.0 ml with the solvent mixture.

Reference solution (a). Dissolve 20.0 mg of the substance to be examined in the mobile phase and dilute to 20.0 ml with the mobile phase. Expose to ultraviolet light at 254 nm for 1 h.

Reference solution (b). Dilute 1.0 ml of the test solution to 20.0 ml with the solvent mixture. Dilute 1.0 ml of this solution to 50.0 ml with the solvent mixture.

Column:

- size: $l = 0.15$ m, $\varnothing = 4.6$ mm,
- stationary phase: spherical end-capped octadecylsilyl silica gel for chromatography R (5 μ m) with a specific surface area of 300 ± 60 m²/g and a pore size of 12 nm.

Mobile phase: mix 50 volumes of acetonitrile R1, 25 volumes of methanol R1 and 25 volumes of a 1.74 g/l solution of dipotassium hydrogen phosphate R previously adjusted to pH 7.5 with phosphoric acid R.

Flow rate: 1 ml/min.

Detection: spectrophotometer at 224 nm.

Injection: 20 μ l.

Run time: twice the retention time of terbutaline.

Relative retention with reference to terbutaline (retention time = about 31 min): impurity A = about 0.15; impurity C = about 0.8; impurity B = about 0.9; impurity D = about 1.5.

System suitability: reference solution (a):

- resolution: minimum 2.0 between the peaks due to impurity B and terbutaline.

Limits:

- impurity B: not more than the area of the principal peak in the chromatogram obtained with reference solution (b) (0.1 per cent);
- any other impurity: for each impurity, not more than the area of the principal peak in the chromatogram obtained with reference solution (b) (0.1 per cent);
- total: not more than 3 times the area of the principal peak in the chromatogram obtained with reference solution (b) (0.3 per cent);
- disregard limit: 0.5 times the area of the principal peak in the chromatogram obtained with reference solution (b) (0.05 per cent).

Loss on drying (2.2.32): maximum 0.5 per cent, determined on 1.000 g by drying in an oven at 105 °C.

Sulphated ash (2.4.14): maximum 0.1 per cent, determined on 1.0 g.

ASSAY

Dissolve 0.250 g in 50 ml of ethanol (96 per cent) R, add 5 ml of 0.01 M hydrochloric acid. Titrate with 0.1 M sodium hydroxide determining the end-point potentiometrically (2.2.20). Read the volume added between the 2 points of inflexion.

1 ml of 0.1 M sodium hydroxide is equivalent to 32.79 mg of C₂₁H₂₆ClN.

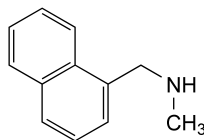
STORAGE

Protected from light.

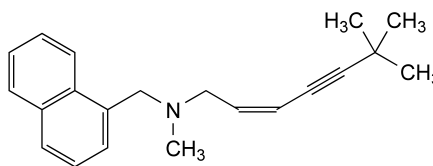
IMPURITIES

Specified impurities: B.

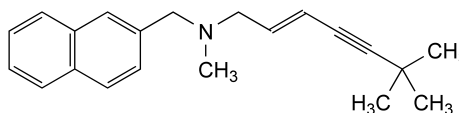
Other detectable impurities (the following substances would, if present at a sufficient level, be detected by one or other of the tests in the monograph. They are limited by the general acceptance criterion for other/unspecified impurities and/or by the general monograph *Substances for pharmaceutical use* (2034). It is therefore not necessary to identify these impurities for demonstration of compliance. See also 5.10. *Control of impurities in substances for pharmaceutical use*): A, C, D.



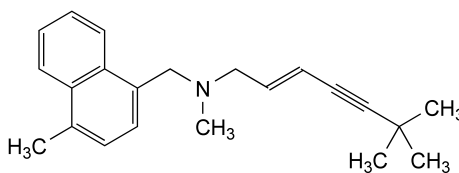
A. *N*-methyl-*C*-(naphthalen-1-yl)methanamine,



B. (*Z*)-*N*,6,6-trimethyl-*N*-(naphthalen-1-ylmethyl)hept-2-en-4-yn-1-amine (*cis*-terbutaline),



C. (*E*)-*N*,6,6-trimethyl-*N*-(naphthalen-2-ylmethyl)hept-2-en-4-yn-1-amine (*trans*-isoterbutaline),

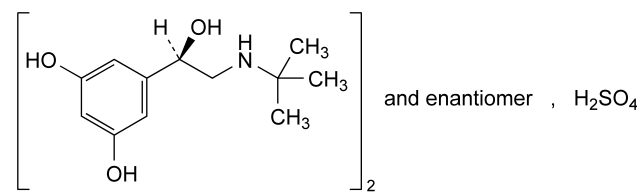


D. (*E*)-*N*,6,6-trimethyl-*N*-[(4-methylnaphthalen-1-yl)methyl]hept-2-en-4-yn-1-amine (4-methylterbutaline).

01/2008:0690
corrected 6.0

TERBUTALINE SULPHATE

Terbutalini sulfas



C₂₄H₄₀N₂O₁₀S
[23031-32-5]

M_r 548.7

DEFINITION

Bis[(1*RS*)-1-(3,5-dihydroxyphenyl)-2-[(1,1-dimethylethyl)amino]ethanol] sulphate.

Content: 98.0 per cent to 101.0 per cent (dried substance).

CHARACTERS

Appearance: white or almost white, crystalline powder.