Claims

[Claim 1]

N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride anhydride, in the form of a crystal ~~.~~

~~[Claim 2]~~

~~A crystal of N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride anhydride~~ having characteristic peaks at 2θ angles of 6.8±0.1°, 10.0±0.1°, 12.7±0.1°, 14.6±0.1°, 14.8±0.1°, 16.2±0.1°, 17.4±0.1°, 17.8±0.1°, 19.5±0.1°, 20.0±0.1°, 21.6±0.1°, 24.7±0.1°, 25.5±0.1°, 25.8±0.1°, 29.8±0.1°, 39.5±0.1°, and 44.9±0.1° in powder X-ray diffraction spectrum.

[Claim 2~~3~~]

The ~~A crystal of N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride~~ anhydride of claim 1, in the form of a crystal having characteristic peaks at about 703±5, 1143±5, 1165±5, 1174±5, 1325±5, 1655±5, 2558±5, 2634±5, 2691±5, 3122±5, 3235±5, and 3396±5 cm^{-1} in infrared absorption spectrum.

[Claim 3~~4~~]

~~A crystal of N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride~~The anhydride of claim 1, in the form of a

crystal having an endothermic peak at about 237°C±5°C in differential scanning calorimetric analysis.

[Claim 45]

~~A crystal of N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride~~The anhydride of claim 1, in the form of a crystal having a water content in a range of from 0% to 0.16% in a water content determination by the Karl Fischer method.

[Claim 56]

A manufacturing method for the crystal of N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride anhydride ~~described in any one~~ of claim~~s~~ 12 ~~to 5~~, comprising:

adding not less than 2 equivalents of hydrochloric acid to N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide,

dissolving the resulting solid in ethanol and water, and

precipitating the crystal using a non-ethanol polar solvent.

[Claim 67]

A pharmaceutical composition comprising:

the N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride anhydride ~~described in any one~~ of ~~C~~claim~~s~~ 1 ~~to 5~~; and

a pharmaceutically acceptable carrier.

~~[Claim 8]~~

~~Use of the N-[(R)-1-{(S)-2-hydroxy-2-phenylpropylamino}propan-2-yl]isoquinoline-6-sulfonamide dihydrochloride anhydride described in any one of Claims 1 to 5 for pharmaceutical manufacture.~~