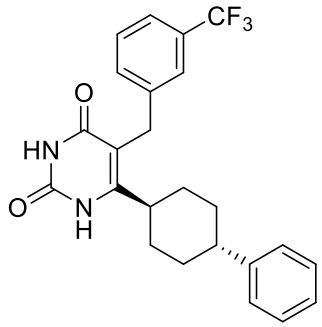
WHAT IS CLAIMED IS:

[Claim 1]. A crystalline form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):




selected from the group consisting of:

anhydrate Form B of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I);

anhydrate Form A of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I);

anhydrate Form C of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I);

anhydrate Form F of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I);

anhydrate Form J of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I);

anhydrate Form L of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I);

THF solvate Form H of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I, THF solvate);

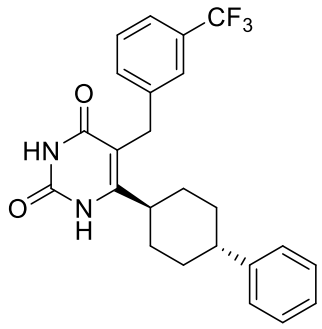
AcOH solvate Form K of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I, AcOH solvate);

dioxane solvate Form M of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I, dioxane solvate);

acetone solvate Form Q of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I, acetone solvate); and

methanol solvate Form R of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I, methanol solvate).

[Claim 2]. A crystalline anhydrate form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):




characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 16.7, 17.0, 17.3, 17.7, 19.0, 19.6, or 23.6° 2θ ± 0.2° 2θ, Form B.

[Claim 3]. The crystalline form of claim 2, characterized by an XRPD pattern comprising four or more peaks at 16.7, 17.0, 17.3, 17.7, 19.0, 19.6, or 23.6° 2θ ± 0.2° 2θ.

[Claim 4]. The crystalline form of claims 2 or 3, characterized by an XRPD pattern comprising five or more peaks at 16.7, 17.0, 17.3, 17.7, 19.0, 19.6, or 23.6° 2θ ± 0.2° 2θ.

[Claim 5]. The crystalline form of any one of claims 2 to 4, characterized by an XRPD pattern comprising peaks at 16.7, 17.0, 17.3, 17.7, 19.0, 19.6, and 23.6° 2θ ± 0.2° 2θ.

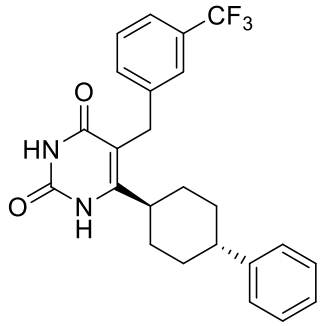
[Claim 6]. The crystalline form of any one of claims 2 to 5, characterized by an XRPD pattern comprising peaks at 9.8, 10.4, 11.2, 11.8, 13.4, 13.7, 14.8, 15.8, 16.2, 16.6, 16.7, 17.0, 17.3, 17.7, 18.0, 19.0, 19.6, 20.3, 20.5, 20.8, 21.0, 21.3, 22.0, 22.3, 22.7, 23.6, 23.8, 24.4, 25.4, 25.6, 25.7, 26.3, 28.1, 28.7, and 37.2° 2θ ± 0.2° 2θ.

[Claim 7]. The crystalline form of any one of claims 2 to 6, characterized by an XRPD pattern substantially as shown in **Error! Reference source not found.**.

[Claim 8]. The crystalline form of any one of claims 2 to 7, characterized by a differential scanning calorimetry (DSC) thermogram having at least one endotherm with an onset of about 255°C.

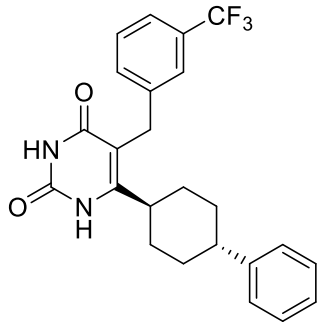
[Claim 9]. The crystalline form of any one of claims 2 to 8, characterized by a DSC thermogram substantially as shown in **Error! Reference source not found.**.

[Claim 10]. A crystalline anhydrate form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):



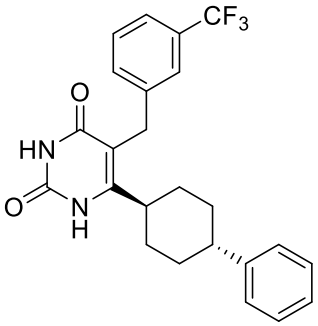

characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 16.3, 17.1, 18.7, 19.9, 22.1, or 22.3° 2θ ± 0.2° 2θ, Form A.

[Claim 11]. A crystalline anhydrate form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):



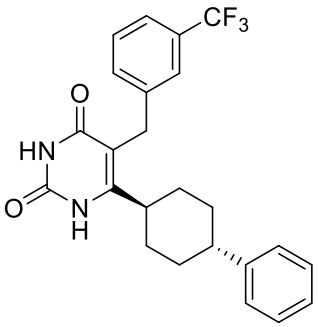

characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 17.3, 17.9, 18.3, 18.4, 21.3, or 21.8° 2θ ± 0.2° 2θ, Form C.

[Claim 112]. A crystalline anhydrate form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):



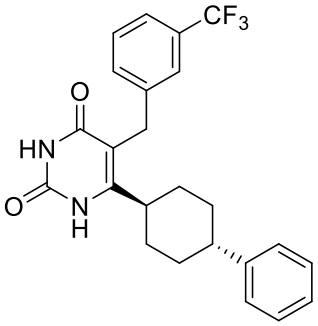
characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 15.9, 16.4, 16.8, 17.3, 19.0, 21.1, or 25.8° 2θ ± 0.2° 2θ, Form F.

[Claim 13]. A crystalline anhydrate form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):



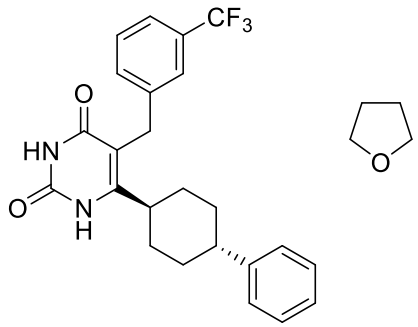
characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 6.0, 13.1, 17.3, 18.8, 19.8, 20.1, or 21.9° 2θ ± 0.2° 2θ, Form J.

[Claim 113]. A crystalline anhydrate form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione (Compound I):



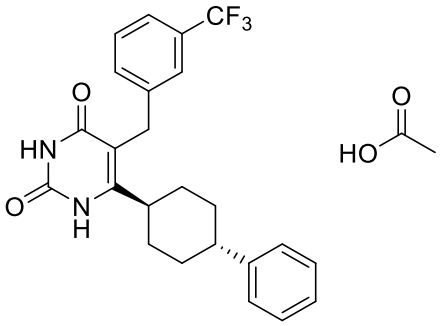
characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 14.6, 15.5, 19.4, 19.7, or 22.2° 2θ ± 0.2° 2θ, Form L.

Claim 114]. A crystalline form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione THF solvate (Compound I, THF solvate):



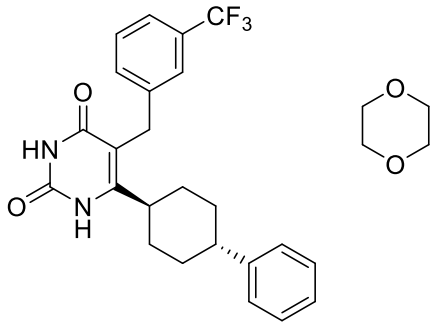

characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 17.2, 18.9, 20.9, 23.5, 25.0, or 25.6° 2θ ± 0.2° 2θ, THF solvate Form H.

[Claim 16]. A crystalline form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione acetic acid (Compound I, acetic acid solvate):



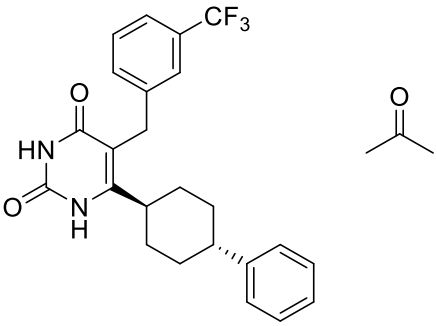

characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 16.0, 16.8, 19.4, 22.3, 23.6, or 26.9° 2θ ± 0.2° 2θ, AcOH solvate Form K.

[Claim 17]. A crystalline form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione dioxane (Compound I, dioxane solvate):



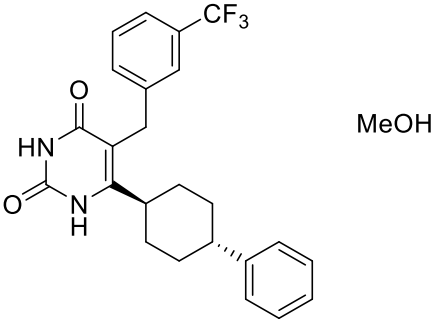
characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 15.3, 17.5, 19.5, 20.1, 20.7, or 26.8° 2θ ± 0.2° 2θ, Dioxane solvate Form M.

[Claim 18]. A crystalline form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione acetone (Compound I, acetone solvate):



characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 15.9, 17.0, 17.2, 17.5, 18.8, 20.6, or 25.4° 2θ ± 0.2° 2θ, Acetone solvate Form Q.

[Claim 19]. A crystalline form of (E)-6-(4-Phenylcyclohexyl)-5-(3-trifluoromethylbenzyl)-1H-pyrimidine-2,4-dione methanol (Compound I, methanol solvate):



characterized by an X-ray powder diffraction (XRPD) pattern comprising three or more peaks at 10.6, 14.6, 20.3, 20.4, or 23.3° 2θ ± 0.2° 2θ, MeOH solvate Form R.

[Claim 20]. A pharmaceutical composition comprising a crystalline form of any one of claims 1 to 19, and one or more pharmaceutically acceptable excipients.

[Claim 21]. The pharmaceutical composition of claim 20, further comprising one or more additional therapeutic agents.

[Claim 22]. A crystalline form of any one of claims 1 to 19, or a pharmaceutical composition of claims 20 or 21, for use in treating a disorder or condition through modulating a glucocorticoid receptor.

[Claim 23]. A crystalline form of any one of claims 1 to 19, or a pharmaceutical composition of claims 20 or 21, for use in treating a disorder or condition through antagonizing a glucocorticoid receptor.

[Claim 24]. Use of a crystalline form of any one of claims 1 to 19, or a pharmaceutical composition of claims 20 or 21, in the preparation of a medicament for use in treating fatty liver disease.

[Claim 25]. The use of claim 24, wherein the fatty liver disease is alcohol related liver disease (ARLD) or nonalcoholic fatty liver disease (NAFLD).

[Claim 26]. The use of claim 25, wherein the alcohol related liver disease is alcohol fatty liver disease (AFL), alcoholic steatohepatitis (ASH) or alcoholic cirrhosis.

[Claim 27]. The use of claims 25, wherein the nonalcoholic fatty liver disease is nonalcoholic steatohepatitis (NASH) or nonalcoholic cirrhosis.

[Claim 28]. The use of claim 25 or 27, wherein the nonalcoholic fatty liver disease is nonalcoholic steatohepatitis.

[Claim 29]. Use of the crystalline form of any one of claims 1 to 19, or a pharmaceutical composition of claims 20 or 21, in the preparation of a medicament for treating antipsychotic induced weight gain.