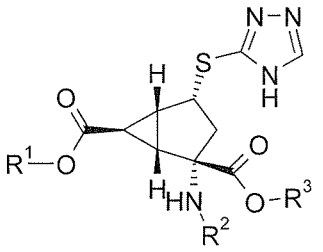
address the need for potent, effective treatments of psychiatric disorders such as bipolar disorder, schizophrenia, depression, and generalized anxiety disorder.

Summary

In a first aspect, the present disclosure provides a compound of the formula



wherein

R^1 is hydrogen, R^2 is hydrogen, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is (*2S*)-2-aminopropanoyl, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is (*2S*)-2-amino-4-methylsulfanyl-butanoyl, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is (*2S*)-2-amino-4-methyl-pentanoyl, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is 2-aminoacetyl, and R^3 is hydrogen;

R^1 is benzyl, R^2 is hydrogen, and R^3 is benzyl; or

R^1 is (2-fluorophenyl)methyl, R^2 is hydrogen, and R^3 is (2-fluorophenyl)methyl;

or a pharmaceutically acceptable salt thereof or a solvate of the salt.

In a second aspect, the present disclosure provides a pharmaceutical composition comprising the compound or salt of the compound described immediately above and a pharmaceutically acceptable carrier, diluent, or excipient.

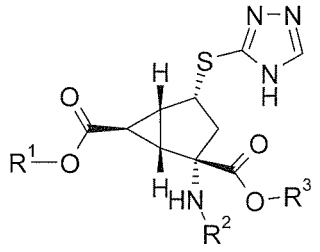
In a third aspect, the present disclosure provides the compound or salt of the compound described immediately above for use in therapy.

In a fourth aspect, the present disclosure provides the compound or salt described immediately above for use in the treatment of a psychiatric disorder selected from the group consisting of bipolar disorder, schizophrenia, depression, and generalized anxiety disorder.

In a fifth aspect, the present disclosure provides a pharmaceutical composition comprising the compound or salt described immediately above, together with a pharmaceutically acceptable carrier and optionally other therapeutic ingredients.

Detailed Description of the Present Invention

The present invention provides a compound of the formula



wherein

R^1 is hydrogen, R^2 is hydrogen, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is (*2S*)-2-aminopropanoyl, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is (*2S*)-2-amino-4-methylsulfanyl-butanoyl, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is (*2S*)-2-amino-4-methyl-pentanoyl, and R^3 is hydrogen;

R^1 is hydrogen, R^2 is 2-aminoacetyl, and R^3 is hydrogen;

R^1 is benzyl, R^2 is hydrogen, and R^3 is benzyl; or

R^1 is (2-fluorophenyl)methyl, R^2 is hydrogen, and R^3 is (2-fluorophenyl)methyl;

or a pharmaceutically acceptable salt thereof or a solvate of the salt.

The present invention provides (*1R,2S,4R,5R,6R*)-2-amino-4-(*4H*-1,2,4-triazol-3-ylsulfanyl)bicyclo[3.1.0]hexane-2,6-dicarboxylic acid, or a pharmaceutically acceptable salt thereof.

As a particular embodiment, the present invention provides (*1R,2S,4R,5R,6R*)-2-amino-4-(*4H*-1,2,4-triazol-3-ylsulfanyl)bicyclo[3.1.0]hexane-2,6-dicarboxylic acid.

The present invention provides (*1R,2S,4R,5R,6R*)-2-[[(*2S*)-2-aminopropanoyl]amino]-4-(1*H*-1,2,4-triazol-3-ylsulfanyl)bicyclo[3.1.0]hexane-2,6-dicarboxylic acid, or a pharmaceutically acceptable salt thereof.

As a particular embodiment, the present invention provides (*1R,2S,4R,5R,6R*)-2-[[(*2S*)-2-aminopropanoyl]amino]-4-(1*H*-1,2,4-triazol-3-ylsulfanyl)bicyclo[3.1.0]hexane-2,6-dicarboxylic acid hydrochloride.

The present invention provides (*1R,2S,4R,5R,6R*)-2-[[(2*S*)-2-amino-4-methylsulfanyl-butanoyl]amino]-4-(4*H*-1,2,4-triazol-3-ylsulfanyl)bicyclo[3.1.0]hexane-2,6-dicarboxylic acid, or a pharmaceutically acceptable salt thereof.