

CLAIMS

1. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine.
2. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine characterized by at least 3 peaks selected from X-Ray diffraction peaks obtained with a CuK α radiation at 2θ (2 Theta (deg)) = 8.4, 10.2, 12.5, 15.7, 16.8, 18.6, 20.5, 21.3, 28.1, 29.4.
3. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine characterized by the X-Ray powder diffraction pattern shown on Figure 1.
4. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine characterized by an infrared spectrum having sharp bands at 3059, 2937, 2233, 1592, 1564, 1537, 1515, 1477, 1429, 1317, 1262, 1168, 1162, 1117, 863, 819, 772, 691.
5. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine characterized by an infrared spectrum shown on Figure 2.
6. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine characterized by at least 3 peaks selected from X-Ray diffraction peaks obtained with a CuK α radiation at 2θ (2 Theta (deg)) = 8.5, 10.0, 12.5, 15.8, 17.1, 18.2, 18.7, 19.4, 20.2, 20.8, 25.7, 27.6.
7. A crystalline form of the mono-phosphate salt of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine characterized by the X-Ray powder diffraction pattern shown on Figure 3.
8. A process for the preparation of a compound according to claims 2 to 5, comprising the steps of a) salt formation of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine with phosphoric acid with subsequent spontaneous

precipitation, and re- crystallization of the product of step a) in ethanol:water (80:20).

9. A process for the preparation of a compound according to claims 6 and 7, comprising the steps of a) salt formation of 6-fluoro-2-[4-(pyridin-2-yl)but-3-yn-1-yl]imidazo[1,2-a]pyridine with phosphoric acid with subsequent spontaneous precipitation, and re- crystallization of the product of step a) in water:acetone (80:20).
10. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to claims 1 to 7, or a combination of two of the polymorph forms of a compound according to claims 1 to 7, and at least one pharmaceutically acceptable carrier, diluent or excipient.
11. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing disorders in which the mGlu5 receptor plays a role, wherein the disorders are selected from the group consisting of: epilepsy, ischemia, neuropathic or inflammatory pain, psychiatric disorders such as psychotic disorders, central nervous system disorders selected from addiction, tolerance or dependence, affective disorders, such as depression and anxiety, attention-deficit/hyperactivity disorder, bipolar disorder, movement disorders, neuroprotection, migraine, neurological disorders such as neurodegeneration, neurotoxicity, Parkinson's disease, PD-LID, dystonia, memory impairment, Alzheimer's disease, dementia, delirium tremens, attentional disorders, eating disorders, mood disorders, cognitive disorders, personality disorders, behavioural disorders, substance of abuse related disorders, including alcohol, nicotine, cocaine, amphetamine, benzodiazepine, analgesics, opiate or other substance tolerance or dependence, bulimia nervosa, anorexia nervosa, gambling dependence, sex dependence, obsessive compulsive disorders, panic disorder, phobia, post-traumatic stress disorder, generalized anxiety disorder, seasonal affective disorders, acute stress disorder, inherited disorders such as Fragile X syndrome, autism, obesity and gastrointestinal disorders, for example, gastro-esophageal reflux disease (GERD), lower esophageal sphincter diseases or disorders, diseases of gastrointestinal motility, colitis, Crohn's disease or irritable bowel syndrome (IBS).

12. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing dystonia.
13. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing Parkinson's disease L-DOPA dyskinesia.
14. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing movement disorders.
15. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing autism.
16. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing Fragile X.
17. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing anxiety.
18. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing depression.
19. Use of a compound according to claims 1 to 7, or a composition according to claim 10, in the manufacture of a medicament for treating or preventing pain.
20. A composition according to claim 10 for use in treating or preventing a disorder as defined in any of claims 11 to 19.