CLAIMS

1. Co-crystal of Ketoprofen, Lysine and Gabapentin, wherein the molar ratio of the components is 1:1:2.

2. The co-crystal as claimed in claim 1, characterized by the following XRPD diffraction peaks: 3.6, 6.3, 18.6 and 21.7 degrees 2-theta ± 0.2 degrees 2-theta, preferably further characterized by the following XRPD diffraction peaks: 9.6, 17.2 and 20.5 degrees 2-theta ± 0.2 degrees 2-theta.

3. The co-crystal as claimed in claim 1 or claim 2, further characterized by one or more of the following:
a DSC thermogram with the endothermic peak corresponding to the melting point at about 143.5°C as reported in Figure 3,
solution ^{1}H-NMR signals as reported in Figure 7 and Table 4, and
solid state ^{13}C CPMAS signals as reported in Figure 8 and in Table 5.

4. The co-crystal as claimed in any one of claims 1 to 3, wherein said Ketoprofen is (S)-Ketoprofen and/or said Lysine is (S)-Lysine.

5. The co-crystal as claimed in any one of claims 1 to 4, for use as a medicament.

6. Use of the co-crystal as claimed in any one of claims 1 to 4, in the manufacture of a medicament for the prevention, reduction or treatment of pain and/or inflammation.

7. The use as claimed in claim 6, wherein said pain is acute or chronic pain.

8. The use as claimed in claim 6 or claim 7, wherein said pain is selected from headache, toothache, menstrual pain, muscle pain, neuropathic pain, pain associated to neuroinflammation, diabetic neuropathy, cancer pain, osteoarthritis, low back pain, sciatalgia, fibromyalgia, trigeminal neuralgia; post-surgical and post-operative pain, post herpetic neuralgia, rheumatoid

arthritis, ankylosing spondylitis, frozen shoulder, phantom limb pain or HIV pain.

9. A pharmaceutical composition comprising a co-crystal as claimed in any one of claims 1 to 4, and a least one pharmaceutically acceptable excipient.

10. The pharmaceutical composition as claimed in claim 9, which contains 0.5-60% by weight of the co-crystal and 40-99.5% by weight of one or more pharmaceutically acceptable excipients.

11. The pharmaceutical composition as claimed in claim 9 or claim 10, which is an oral solid composition.

12. Process for the preparation of a co-crystal as claimed in any one of claims 1 to 4, which comprises:
a) suspending Ketoprofen, Lysine and Gabapentin, in a molar ratio of 1 / 1 to 1.5 / 2 to 2.5, in a suitable solvent,
b) dissolving Ketoprofen, Lysine and Gabapentin, optionally by heating the suspension and/or under stirring, till a clear solution is obtained
c) subsequently cooling the solution, and
d) optionally adding an anti-solvent.

13. The process as claimed in claim 12, wherein said Ketoprofen and Lysine in step a) are in form of a Ketoprofen Lysine salt or a co-crystal.

14. The process as claimed in claim 12, wherein said Ketoprofen is the free acid and/or said Lysine is in neutral form.

15. The process as claimed in any one of claims 12 to 14, wherein said Gabapentin is in neutral form (zwitterionic internal salt).

16. The process as claimed in any one of claims 12 to 15, wherein in step a) the molar ratio of Gabapentin vs Ketoprofen is between 2:1 and 2.2:1, preferably is about 2:1.