CLAIMS:

1. A manufacturing method of a drug carrier, comprising the following steps:

providing an aqueous solution of a negatively charged polymer having 100 parts by weight and a pH value from 6 to 8, wherein the aqueous solution of negatively charged polymer is prepared by dissolving a negatively charged polymer in a NaOH solution;

providing an aqueous solution of sodium tripolyphosphate having 330 to 1000 parts by weight and a pH value from 6 to 8, wherein the aqueous solution of sodium tripolyphosphate is prepared by dissolving sodium tripolyphosphate dissolved in a NaOH solution;

providing an aqueous solution of an active substance having 2000 to 3000 parts by weight and a pH value from 6 to 8, wherein the aqueous solution of active substance is prepared by dissolving an active substance in a NaOH solution;

mixing the aqueous solution of the negatively charged polymer, the aqueous solution of sodium tripolyphosphate, and the aqueous solution of the active substance;

adding an aqueous solution of chitosan having 830 to 2500 parts by weight and a pH value from 3 to 5 to form an active mixture; and

making the active mixture react from 5 to 60 minutes to allow the negatively charged polymer, the sodium tripolyphosphate, the active substance, and the chitosan to self-assemble to form the drug carrier;

wherein an encapsulation rate of the active substance encapsulated by the drug carrier is from 55% to 75%.

2. The manufacturing method according to claim 1, wherein the drug carrier structure has a particle size from 110nm to 160nm.

3. The manufacturing method according to claim 1, wherein the drug carrier structure in the aqueous solution has a surface potential from 15mV to 25mV.

4. The manufacturing method of claim 1, wherein the active substance comprises amoxicillin, clarithromycin, omeprazole, penicillin, or a combination thereof.

5. The manufacturing method of claim 1, wherein the negatively charged polymer comprises alginic acid salt, heparin, polyacrylic acid, polystyrene sulfonate, polymalic acid, hyaluronic acid, or a combination thereof.

6. The manufacturing method of claim 1, wherein the active substance in the drug carrier has a weight equal to 32 % to 38 % of the weight of the drug carrier.

7. A drug carrier, manufactured according to the manufacturing method of claim 2.

8. A use of a drug carrier for the manufacture of a medicament for treatment of a gastrointestinal disease, comprising:

providing the drug carrier of claim 7; and

applying an effective dose of the drug carrier to helicobacter pylori in a body of a host.

9. The use according to claim 8, wherein the effective dose falls within a range from 1mg/kg of body weight daily to 10mg/kg of body weight daily.

10. The use according to claim 8, wherein the host is a human body.

11. The use according to claim 8, wherein the gastrointestinal disease is a disease caused by helicobacter pylori.

12. The use according to claim 11, wherein the gastrointestinal disease comprises chronic gastritis, duodenal ulcer, gastric ulcer, gastric lymphoma, gastric cancer, gastric mucosal atrophy, gastric intestinal metaplasia, or a combination thereof.