Patent Search

Invention Title	LEPIDIUM SATIVUM BASED MUCOADHESIVE BEADS OF EPALRESTAT FOR THE TREATMENT OF DIABETIC NEUROPATHY
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Name	Address	Country	Nationality

Applicant

Name	Address	Country	Nationality

Abstract:

The present invention relates to develop bioadhesive Lepidium sativum and low methoxy pectin based controlled drug release beads of epalrestat (model drug) with low a solubility. Water soluble carrier such as PVP K30 and HPMC E4 were successfully employed as ternary agent for enhancement of solubility. Bioadhesive Lepidium sativum a methoxy pectin-based beads of epalrestat were prepared using ionotropic gelation technique and optimized by 32 full factorial design by considering the concentration of (bioadhesive polysaccheride) (X1) and concentration LM pectin (X2) as independent variables and bioadhesive strength (R1), D12 (R2) and T50% (R3) as responses. Pre-trea bioadhesive beads of epalrestat improved the solubility of epalrestat compared to pure epalrestat loaded beads. Thus, simple manufacturing process with a combined ap proves a promising for treatment of diabetic complications such as diabetic neuropathy.

Complete Specification

Claims:We Claim,

1. A composition of novel multiparticulate bioadhesive drug delivery system for diabetic neuropathy comprising of hydrophobic drug epalrestat and water-soluble car
2. The composition as claimed in claim 1, wherein the water-soluble carrier such as PVP K30 and HPMC E4 were successfully employed as ternary agent for enhancem of solubility.
3. The composition as claimed in claim 1, wherein the primary bioadhesive agent was isolated from Lepidium sativum mucilage, natural polysaccharide.
4. The composition as claimed in claim 1, wherein the Bioadhesive Lepidium sativum and low methoxy pectin-based beads of epalrestat were prepared using ionotrop gelation technique.
5. The composition as claimed in claim 1, wherein improving solubility of epalrestat by ternary complexation and then to optimize its bioadhesive formulation with Lepidium sativum using 32 factorial design approach to adhere to stomach mucosa for prolonged time and overcome disadvantages concerned with half-life of epalrest
6. The composition as claimed in claim 1, wherein the manufacturing process is simple.

, Description:FIELD OF INVENTION

The present invention relates to a development of bioadhesive Lepidium sativum and low methoxy pectin-based beads of epalrestat with low aqueous solubility.

BACKGROUND OF THE INVENTION

The following prior art is being reported:

View Application Status

राष्ट्रीय मतदाता सेवा पोर्टल
NATIONAL VOTERS' SERVICES PORTAL

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पेटेंट कार्यालय
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(57) Abstract :
The present invention relates to develop bioadhesive Lepidium sativum and low methoxy pectin based controlled drug release beads of epalrestat (model drug) with low aqueous solubility. Water soluble carrier such as PVP K30 and HPMC E4 were successfully employed as ternary agent for enhancement of solubility. Bioadhesive Lepidium sativum and low methoxy pectin-based beads of epalrestat were prepared using ionotropic gelation technique and optimized by 32 full factorial design by considering the concentration of LSM, (bioadhesive polysaccheride) (X1) and concentration LM pectin (X2) as independent variables and bioadhesive strength (R1), D12 (R2) and T50% (R3) as responses. Pre-treated bioadhesive beads of epalrestat improved the solubility of epalrestat compared to pure epalrestat loaded beads. Thus, simple manufacturing process with a combined approach proves a promising for treatment of diabetic complications such as diabetic neuropathy.

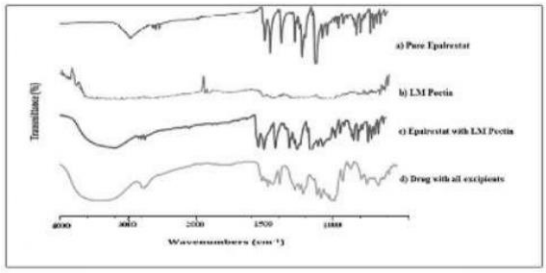

Figure 1

No. of Pages : 26 No. of Claims : 6