

पेटेंट कार्यालय  
शासकीय जर्नल

**OFFICIAL JOURNAL  
OF  
THE PATENT OFFICE**

---

---

निर्गमन सं. 36/2025  
ISSUE NO. 36/2025

शुक्रवार  
**FRIDAY**

दिनांक: 05/09/2025  
DATE: 05/09/2025

---

---

पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511078862 A

(19) INDIA

(22) Date of filing of Application :20/08/2025

(43) Publication Date : 05/09/2025

(54) Title of the invention : DEVELOPMENT AND VALIDATION OF INULIN AS A PREBIOTIC EXTRACTED FROM GINGER AND GARLIC

(51) International classification :A61K0036906800, A61K0036896200, C08B0037000000, A61K0031733000, A61K0035747000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

**1)Dr. Anand Kumar**

Address of Applicant :School of Biotechnology, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----

**2)Dr. Vikas Kumar**

**3)Dr.Rashmi Verma**

**4)Dr. Ankesh Pandey**

**5)Dr. Shailendra Singh Shera**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)Dr. Anand Kumar**

Address of Applicant :School of Biotechnology, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----

**2)Dr. Vikas Kumar**

Address of Applicant :School of Biotechnology, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----

**3)Dr.Rashmi Verma**

Address of Applicant :School of Biotechnology, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 -----

**4)Dr. Ankesh Pandey**

Address of Applicant :Meerut Institute of Engineering and Technology, Meerut, Uttar Pradesh, Pin Code: 250005 -----

**5)Dr. Shailendra Singh Shera**

Address of Applicant :Kashi Institute of Technology, Varanasi, Uttar Pradesh, Pin Code: 221307 -----

(57) Abstract :

The Present invention Relates to a novel method for extracting inulin from ginger (*Zingiber officinale*) and garlic (*Allium sativum*) through hot water extraction followed by ethanol precipitation. The process yields 16.8% inulin from ginger and 24.5% from garlic, demonstrating superior prebiotic activity comparable to commercial chicory-derived inulin. The extracted inulin promotes growth of beneficial bacteria including *Lactobacillus plantarum* with optical density values reaching 1.05 for garlic inulin versus 0.98 for commercial standards. Characterization through FTIR, TLC, and HPLC confirms structural integrity and purity. The invention provides cost-effective, sustainable alternative to conventional inulin sources while maintaining therapeutic efficacy for gastrointestinal and respiratory health applications.

No. of Pages : 12 No. of Claims : 7