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(54) Title of the invention : PHYTOCHEMICAL SCREENING AND ANTI-INFLAMMATORY ACTIVITIES IN SEVERAL EXTRACT OF LACTUCA SATIVA L- VAR. CRISPA

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(57) Abstract :  
 Abstract This invention pertains to a pharmaceutical composition derived from Lactuca sativa L. var. crispa, specifically targeting anti-inflammatory applications. The composition features an extract enriched with a novel compound, Lactuvone, constituting approximately 5% of the phytochemical composition. Formulated into a topical cream for dermal application, the composition exhibits a remarkable 60% reduction in inflammatory markers in vitro. The extract, obtained predominantly from the leaves and further purified through column chromatography, showcases synergistic effects with additional identified compounds, including chlorogenic acid, quercetin, lactucin, and β-caryophyllene. Additionally, encapsulating the Lactuvone-enriched extract into oral capsules demonstrates a substantial 40% reduction in systemic inflammatory markers in vivo. This innovative pharmaceutical composition presents promising prospects for natural anti-inflammatory remedies, positioning Lactuca sativa L. var. crispa as a frontrunner in plant-based therapeutics.

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