

## Dermatological Evaluation of Anti-Irritant and Anti-Inflammatory Effect of Plumerin-R Isolated from the Latex of *Plumeria rubra* Linn.

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**SUMMARY.** A study was conducted to assess the significance of Plumerin-R isolated from the latex of *Plumeria rubra* Linn. (Apocynaceae) as a anti-irritant and anti-inflammatory agent in dermatological use. Phenol, histamine, and sodium lauryl sulfate (SLS), irritation models were used. Irritation was induced by applying phenol, histamine and SLS, single topical application onto the ear of the rabbit. The mean decrease in redness and erythema were used to calculate the anti-irritant effect with those of control and standard betamethasone. Plumerin-R (25, 50, and 75 mg) were tested for anti-irritant effect and compared with control and standard groups. Both the higher doses showed anti-irritant effect with the highest inhibition (94.42%) in phenol, followed by SLS (90%), and histamine (88.46%) irritation models respectively. Plumerin-R countered the effect of irritation and suppressed inflammatory signs in experimental animals.

**RESUMEN.** Se realizó un estudio para evaluar la importancia de Plumerina-R aislada del látex de *Plumeria rubra* Linn. (Apocynaceae) como un agente anti-irritante y antiinflamatorio para uso dermatológico. Se usaron fenol, histamina y laurilsulfato de sodio (SLS) como modelos de irritación. La irritación se indujo aplicando fenol, histamina y SLS en aplicación tópica individual sobre la oreja de conejos. La disminución media del enrojecimiento y el eritema se usaron para calcular el efecto antiirritante con los de control y betametasona estándar. Plumerina-R (25, 50 y 75 mg) se analizaron para determinar el efecto antiirritante y se compararon con los grupos control y estándar. Ambas dosis más altas mostraron un efecto antiirritante en los modelos de irritación, con la inhibición más alta (94.42%) en fenol, seguido por SLS (90%) e histamina (88.46%), respectivamente. Plumerina-R contrarrestó el efecto de la irritación y suprimió los signos inflamatorios en animales de experimentación.

**KEY WORDS:** betamethasone, counter-irritant, plumerin-R, rabbit's skin, SLS.

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