



## Measurement of *in Vitro* Cellular Metabolism of Emodin in Dendritic Cell

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**SUMMARY.** Emodin is an active anthraquinone constituent of rhubarb extract, it can inhibit the differentiation and maturation of dendritic cells (DCs). DCs are antigen-presenting cells (APCs), many researchs focus on how DCs can be harnessed to induce immunity. This paper investigated the pharmacokinetic characteristics of emodin in DCs *in vitro* to understand the interaction between emodin and DCs. The fluorescence microscopy was used to detect the distribution of emodin. The DCs culture fluid containing 10 ug/mL emodin were analysed at 5, 15, 30, 60, 90, 120, 180, 240, and 300 min by LC-MS method. The result showed emodin was mainly distributed on cell membrane and there were no obviously difference in concentration from 5-300 min, emodin couldn't be metabolized by DCs dramatically.

**RESUMEN.** La emodina es un constituyente antraquinónico activo del extracto de ruibarbo, que puede inhibir la diferenciación y maduración de las células dendríticas (DCs). Las DCs son células presentadoras de antígeno (APCs) y muchos trabajos se centran en cómo pueden aprovecharse para inducir la inmunidad. En este trabajo se investigaron las características farmacocinéticas de la emodina en las DCs *in vitro* para entender la interacción entre emodina y las DCs. La microscopía de fluorescencia se utilizó para detectar la distribución de emodina. El fluido de cultivo las CDs conteniendo 10 ug/mL de emodina se analizó a los 5, 15, 30, 60, 90, 120, 180, 240 y 300 min por LC-MS. El resultado mostró que emodina se distribuyó principalmente en la membrana celular y no hubo diferencia en la concentración entre 5-300 min, por lo que emodina no podría ser metabolizada ni destruída por las DCs.

**KEY WORDS:** Dendritic cell, Distribution, Emodin, Metabolism.

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