



IMAGE

Insights image for Forskolin attenuates the NLRP3 inflammasome activation and IL-1 β secretion in human macrophages

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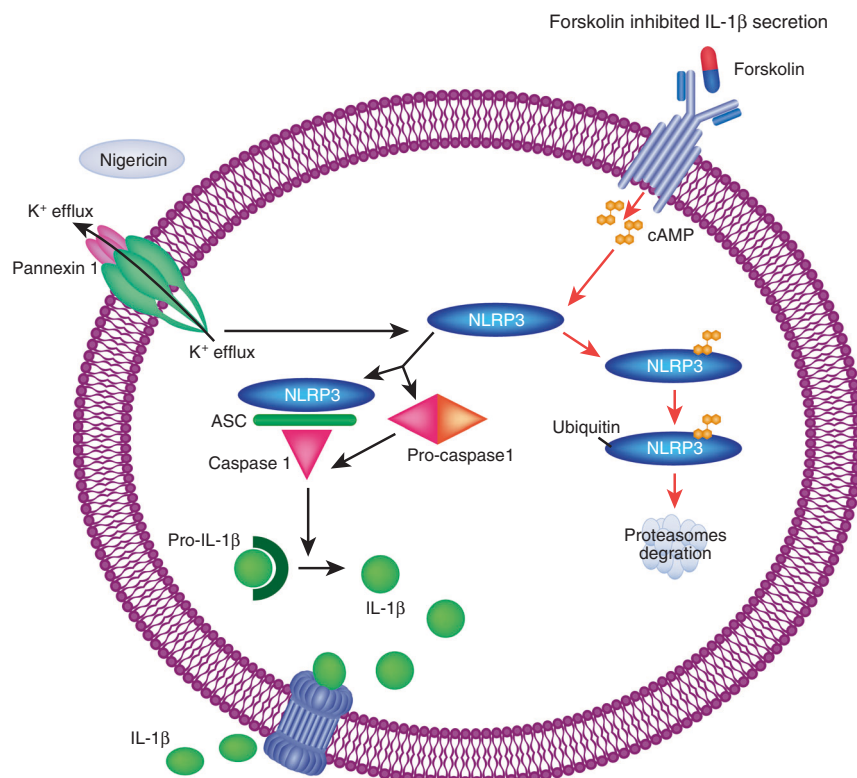
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Nigericin activates the NLRP3 inflammasome by stimulating an intracellular K⁺ efflux through the pannexin-1 dependent pathway, which induces the assembly of the NLRP3 inflammasome (NLRP3-ASC-Caspase 1) and its subsequent activation of the secretion of IL-1 β in PMA-differentiated THP-1 macrophages. Forskolin increases the level of intracellular cAMP, which then binds to NLRP3. Binding of cAMP to NLRP3 promotes the ubiquitination of NLRP3, thus leading into degradation of both cAMP and NLRP3 protein in proteasomes. The degradation of NLRP3 then interrupts the assembly of inflammasome (NLRP3-

ASC-Caspase 1) and thus the activation of pro-caspase 1 auto-catalysis into caspase 1 which subsequently interrupting the maturation and secretion of IL-1 β .

REFERENCE

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