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[\[PDF \(394K\)\]](#) [\[References\]](#)**Interferon-gamma liniment protects hairless mice against ultraviolet irradiation-induced skin damage**Yutaka NOMURA¹⁾, Mutsuko TANIGUCHI¹⁾, Manabu MIYATA¹⁾, Toshio ARIYASU¹⁾, Hiroshi YAMAUCHI¹⁾, Masao IKEDA¹⁾ and Masashi KURIMOTO¹⁾

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ABSTRACT

Ultraviolet B (UVB) irradiation has been reported as one of causes of epidermal carcinoma and also one of immunosuppressive inducers associated with an up-regulated production of T helper (Th) 2-type cytokines such as interleukin-4 (IL-4) and IL-10. We investigated using a chronically UV-irradiated mouse model in this study whether liniment of interferon-gamma (IFN- γ), one of Th1-type cytokines, would be able to protect against UV-induced skin damage or not. We report here for the first time that liniment of IFN- γ promoted desirable skin reactions such as the inhibition of epidermal cell proliferation, the increment of soluble collagen levels and the inhibition of mast cell degranulation and that the dermal reactions after IFN- γ treatment bore resemblance to the reactions induced by UVA irradiation reported to induce Th1-type immune reactions. Thus, these results suggest that liniment of IFN- γ is effective to suppress skin damages after UV irradiation through regulation of the balance of Th1-type and Th2-type immune responses.

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