

## **Screening for photoallergenicity of cosmetic agents and evaluation of photoprotection by sunscreen agents using a mouse model of contact photosensitivity**

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Contact photosensitivity (CPS) is successfully induced in mice by application of photosensitizing agents plus irradiation with ultraviolet A (UVA). By using this mouse model, we evaluated the photoallergenicity of cosmetic agents and the protectiveness by sunscreens. Photoallergic cutaneous responses were induced by photosensitizing agents, including tetrachlorosalicylanilide (TCSA), tribromosalicylanilide, bithionol, musk ambrette, and methylcoumarin. In CPS to TCSA, two UVA-absorbing sunscreens, benzophenone-3 and Parsol 1789, dramatically inhibited the CPS response, whereas the two UVB-absorbers, p-aminobenzoic acid and 2-ethyl-hexyl-pmethoxycinnamate, exhibited much less suppressive effect. These findings indicated that the murine CPS model is useful for screening of photoallergenicity of cosmetics and evaluation of photoprotectiveness by sunscreens.