

## **The development of screening method for evaluating safety on materials used for cosmetics**

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Allergic contact dermatitis, one of the most common occupational and environmental diseases, is caused by foreign antigen exposed to the skin. The contactant diverges into wide range of materials, such as metal, chemical, and resin. Photo contact dermatitis is caused by ultraviolet exposure in addition to exogenous materials, such as NSAIDs.

For evaluating the safety of each material, it has been requested to use in vitro systems instead of using animal models these days. Since contact dermatitis and photo contact dermatitis are based on the chain reaction of immune cells, it is not satisfactory to assess these issues only using single cell line. Therefore, we sought use several cell lines in combination and estimate the safety and effect on each immunological step in contact and photo-contact dermatitis.