

## Role of prostaglandin terminal synthases in skin disease

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Microsomal prostaglandin (PG) E synthase-1 (mPGES-1) and prostacyclin synthase (PGIS) are PG terminal synthases that function downstream of inducible cyclooxygenase (COX)-2 in the PGE<sub>2</sub> and PGI<sub>2</sub> biosynthetic pathways, respectively. In the present study, to reveal the role of these PG terminal synthases in skin diseases, we investigated the effects of genetic deletion of mPGES-1 and PGIS on skin disease models in mice. As the results, we found that both mPGES-1- and PGIS-deficient mice exhibited a significantly decreased contact hypersensitivity response, indicating that mPGES-1 and PGIS cooperatively exacerbate skin inflammatory reactions. Chemical-induced skin carcinogenesis was also suppressed by mPGES-1 deficiency, but PGIS deficiency did not affect skin carcinogenesis. mPGES-1 plays an important role in skin carcinogenesis, but contribution of PGIS might be little.