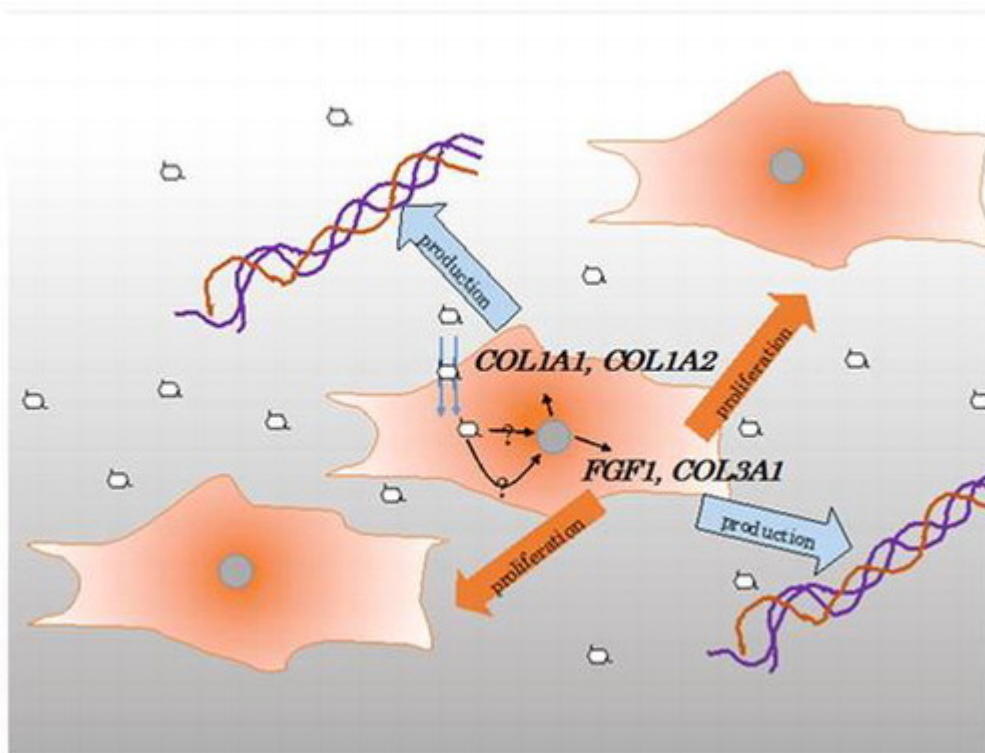


Ethyl α -D-glucoside (α -EG) is a glycoside present in sake, Japanese rice wine. Previous studies have reported that α -EG suppresses skin roughness after ultraviolet B irradiation, transepidermal water loss, and hepatic function disorder, and has a skin moisturizing effect. In this study, 0.48 μ M of α -EG was found to increase the proliferation of normal human dermal fibroblasts (NHDF) by 121.0%, and the amount of collagen I produced by NHDF increased by 159.6% at an α -EG concentration of 0.048 μ M, compared to those in cells cultured without α -EG. In NHDF cultured in α -EG-supplemented medium, the expression of fibroblast growth factor I and VII mRNA increased by 148.8 and 153.1%, at an α -EG concentration of 4.8 and 0.048 μ M, respectively, as measured by a quantitative reverse transcription-polymerase chain reaction. Transcript levels of type I collagen genes, *COL1A1* and *COL1A2*, increased by 152.4 and 129.7%, respectively, and that of a type III collagen gene, *COL3A1*, increased by 131.8% at an α -EG concentration of 0.48 μ M. These findings supported the possibility that α -EG was involved in the maintenance and improvement of skin homeostasis and moisturizing functions.



When Ethyl- α -D-glucoside was added to the medium, fibroblast proliferation and Type I collagen in the medium increased, and expression levels of these genes increased.