

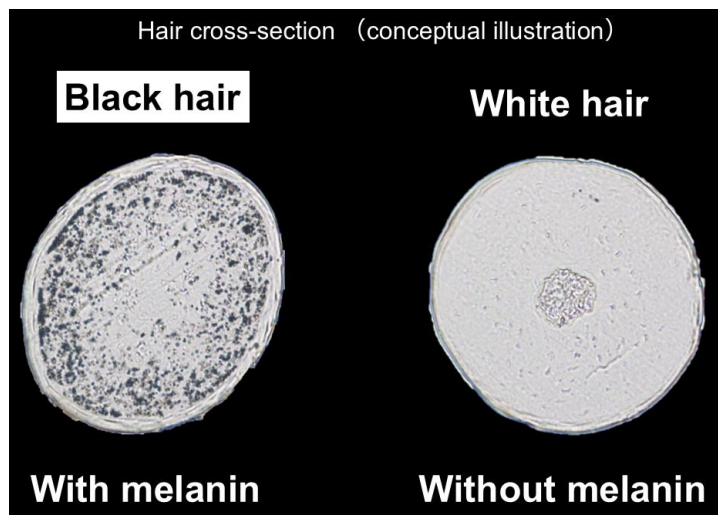
DHI Hair Coloring Technology

A hair-coloring technology that dyes hair black using “a source of black hair melanin” that is present in black hair but absent in gray hair (DHI: 5,6-dihydroxyindole). By fixing this precursor of black-hair melanin onto the hair surface, it replenishes natural-looking blackness. Unlike conventional hair-color products that require a skin allergy test (patch test), it can also be tried by people who cannot use typical (diamine-based) hair dyes. This technology was developed jointly with Gekkeikan Sake Co., Ltd.



<Unique Points>

The idea was inspired by the fact that hair color is determined by melanin, and that gray hair is a condition in which the hair can no longer produce melanin.



By combining Gekkeikan’s craftsmanship cultivated through sake brewing with Kao’s bioproduction technologies developed through areas such as detergent enzymes, we established a mass-production method for “the source of black hair melanin (DHI).”



By depositing “the source of black hair melanin” between the cuticle layers on the hair surface, the hair becomes colored. The depth of blackness varies with the amount of the melanin precursor (DHI) retained on the hair surface, enabling a natural-looking black color.



DHI Hair Coloring Technology

<Key Benefits>

- Because melanin is deposited and retained on the hair surface, the color lasts longer.
- It can be used in the bath during shampooing with a 5-minute leave-on time, helping relieve the stress of gray-hair care.
- It can also be tried by people who are unable to use typical diamine-based hair dyes.

<Link to Other Contents>

- Kao Official Video
-Hair wellness-inspired color technology (Japanese only)
https://www.youtube.com/watch?v=ymGWFKzk_Y8
- Kao Blaune
The Story Behind Naturira (Japanese only)
<https://www.kao.co.jp/blaune/products/naturila/story/>

<Concerned Research Areas>

- Product Development Research:
-Hair Care
<https://www.kao.com/global/en/innovation/research-development/product-development/hair-care/>
- Fundamental Research:
-Material Science
<https://www.kao.com/global/en/innovation/research-development/fundamental/material-science/>
-Production Technology
<https://www.kao.com/global/en/innovation/research-development/fundamental/production-technology/>