

SAFETY AND EFFICACY
EVALUATION OF
COSMETICS &
COSMECEUTICALS

DERMAPRO

Since 2001



SKIN & HAIR RESEARCH CENTER INSTITUTE

History

2024

Ethnic Subject Management

2023

Participation in National RND Project
'Study of Skin Characteristics Data Bank Establishment'
executed in Jakarta

Maintaining qualification as a cosmetics testing institution by passing
the regular quality audit from Estee Lauder

2021

MOU as a partnership with SGS Korea

Commemorating 20th anniversary, conclusion of
mutual business support agreement with Ellead, IEC Korea

2019

Participation in National RND Project
'Study of Skin Characteristics Data Bank Establishment'
executed in Rome Italy and Toronto Canada

Qualified as a cosmetics testing institution by successfully passing
a quality audit from Estee Lauder

Qualified as a cosmetics testing institution by successfully passing
a quality audit from SISLEY

2020

Construction of Company Building
Acquisition of LMO Safety Management 2nd Grade (No.LML 20-105)

2018

Participation in National RND Project 'Study of Skin Characteristics Data Bank
Establishment' executed in Paris France and Tokyo Japan

Qualified as a cosmetics testing institution by successfully passing
a quality audit from CHANEL

2017

Participation in National RND Project
'Study of Skin Characteristics Data Bank Establishment'
executed in LA and New York USA

2016

Participation in National RND Project 'Study of Skin Characteristics Data Bank
Establishment' executed in Guangzhou, Harbin, Chungching China

Successfully passed rigorous external audit at Dr. August Wolff GmbH & Co.
at an international standard

2015

Participation in National RND Project
'Study of Skin Characteristics Data Bank Establishment'
executed in Manila Philippines, Moscow Russia, Istanbul Turkey

Expanding of DERMAPRO Bio Research Center

2014

Participation in National RND Project 'Study of Skin Characteristics Data Bank
Establishment' executed in Ulaanbaator Mongol, Taipei Taiwan and Astana Kazakhstan
MOU as a Partnership with Proderm in Hamburg Germany

2013

MOU as a Partnership with Stephen & Associates in Dallas USA
MOU as a Partnership with Landproof in Gangzhou China
Registration of IRB Committee, Ministry of Public Health in Korea
Registration of Cosmetic Manufacturing and Distributor in KFDA

2012

MOU as a Partnership with Shanghai Skin Disease Hospital in Shanghai, China
MOU as a Partnership with Claims in Mumbai India

2010

DERMAPRO's Collection of Dissertations for celebration of 10th Anniversary

2007

Establishment Bio Research Center in Korea
Registration of IRB Committee, OHRP(IORG No. 0005011, USA)
MOU as a Partnership with Peritesco in Paris France

2006

Registration of as a Venture Firm in Korea

2005

Registration of 1st Skin Research Center in Korea

2004

Acquisition of Certification ISO 9001:2008 (KQS5885)

2001

Foundation of DERMAPRO Ltd.

Our Company

DERMAPRO, established in May 2001, is a skin research institute that specializes in human dermatological testing for evaluation of safety and efficacy of cosmetics, cosmeceuticals, food supplements raw materials, esthetic devices and toiletries.

All human clinical trials performed by DERMAPRO are planned, processed, reported and managed according to GCP. Based on this, we have achieved ISO 9001:2015 certificate, which ensures the standardization and reliability of our operation and makes our company internationally competitive in human testing. We runs our own IRB committee.

The main working field of DERMAPRO includes not only the evaluation of general skin physiology such as moisturizing, sebum control and firming, but also the evaluation of anti-wrinkle, whitening, sun protection factors, breast firming, hair growth & loss, acne, atopy control and etc..

All of our clinical studies and evaluations including governmental R&D projects are being executed by leading expert group with new technologies and methods.

As being a leader in this area, we will make unceasing efforts to foresee the expectation of market needs based on reliability and confidence.

Working Field

Safety and Efficacy Test for

Functional Cosmetics,
Food Supplements,
Cosmeceuticals,
Cosmetics,
New Materials,
Cosmetic ingredients,
All External Preparation

New Protocol Development

Development of Alternative Study Method

Clinical Consulting and Training

Safety Evaluation

Certified Test Methods by the Most Experienced Expert Group



- Skin Primary Irritation Test / Skin Cumulative Irritation Test
- Skin Repeat Insult Patch Test / Skin Phototoxicity Test
- Human Skin Photosensitization Test / Human Skin Sting Potential Test
- Safety-In-Use Test on Sensitive skin / Pediatric Safety-In-Use
- Safety-In-Use Test with multi-racial skin / Safety-In-Use Test on scalp
- Ophthalmic Safety-In-Use Test

DERMAPRO has established a safety assessment system consisting of dermatologists and ophthalmologists, who are leading experts in safety assessment, as well as professionals with extensive experience in related fields.

We conducts safety assessments of a total number of around 1,200 test samples annually, including cosmetics, raw materials, extracts, textiles, detergents and industrial products such as irritation to skin and eyes, allergic potential and usability assessment.

Testing items include primary and cumulative irritation test for evaluating the irritation potential, phototoxicity and photosensitization test for evaluating the irritation and sensitization potential the materials due to sunlight, HRIPT for evaluating sensitization potential and safety-in-use test for evaluating the potential subjective or objective irritation of the test products in actual use conditions.

DERMAPRO studied continuously research, including publishing safety evaluation standards in international journals based on accumulated databases.



Face and Body Evaluation

Cosmetics, Quasi Drug, Food Supplement, Cosmetic Device

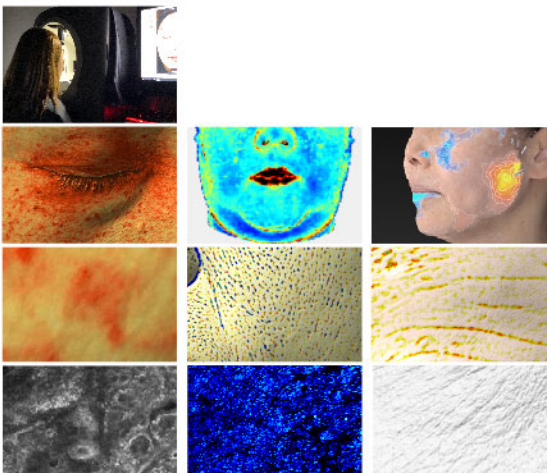


Human Skin Wrinkle Test / Human Skin Firming Test
Human Skin Texture test / Human Skin Hydration Test
Human Skin Scale Test / Human Skin Pore Test
Human Skin Lightening Effect Test / Human Skin Cooling Effect Test
Human Skin Dark Circle Test / Skin Radiance and Gloss Effect Test
Human Skin Cellulite Test / Human Skin Anti-Pollution Test
Breast Firming Effect Test / Human Skin Wrinkle Improvement Test
Damaged Skin Barrier Improvement Effect Test / Cleansing Effect Test
Antiperspirant Test/ Puffiness Reducing Effect Test / Non-Comedogenicity Test
Make-up Effect Test / Human Skin Sensitivity Test
Human Skin Antimicrobial Effect Test / Human Teeth Whitening Test
Human Skin Lightening Effect Test
Human Skin Hydration Improvement Test of Food Supplement
Acne Skin Improvement Effect Test
UV-Damaged Skin Recovery Effect Test of Food Supplement
Human Itching alleviation Test

DERMAPRO possesses over 100 test methods to assess functional cosmetics, basic skincare products, makeup products, over-the-counter (OTC) drugs, skin health supplements, body care products, and beauty devices.

Through continuous research and development, DERMAPRO strives to diversify its evaluation methods by publishing research papers and developing new testing methodologies. Recently, studies on MED determination using skin color measurement devices, facial microvascular distribution patterns, and regional body skin tone have been published in academic journals. Additionally, new evaluation methods, such as scalp fine dust cleansing and itchiness assessment, have been developed and are now utilized in evaluations.

In addition, DERMAPRO possesses a wide range of measurement devices capable of evaluating all aspects of the skin, from its surface to internal conditions, necessary for conducting assessments. To ensure the reliability and accuracy of results, all measurement devices undergo regular inspection and maintenance. Furthermore, to maintain the expertise of evaluators, annual training sessions and qualification verification for researchers are conducted.



Total Solar Protection Evaluation

From UV to Blue light

UVA Protection Factor Test / Sun Protection Factor (SPF) Test
Water Resistance Test / Sweat Resistance Test
UVA Protection Factor *in vitro* Test / Blue Light (BL) Test

UVA, UVB, sweat and water resistance clinical tests and *in vitro* UVA tests are mainly conducted in accordance with international standards such as ISO, FDA, etc..

The evaluations are conducted by professionals secured based on periodic management of measuring devices, essential curriculum and test know-how using self-developed patent devices.

The Blue light blocking effect evaluation method is a system that independently developed to enable evaluation in combination with *in vivo* and *in vitro*, which measure skin blackening and light transmission. It prevents skin damage caused by excessive light exposure and improves the discriminability of the blue light blocking effect to produce accurate results.



Hair and Scalp Evaluation

From Hair Pathology, Physiology to Physical Properties

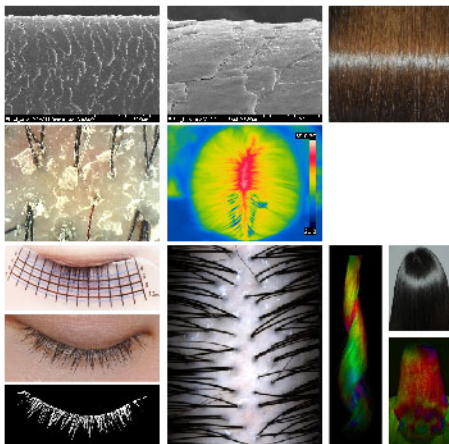


Scalp Physiology Condition Evaluation / Hair Physiology Evaluation
Hair Property Evaluation / Anti-Hair Loss Effect Evaluation
Scalp Dandruff and Itching Alleviation Evaluation
Scalp cleansing effect Evaluation

The hair and scalp evaluation includes assessments based on the physiology of hair/scalp, cleansing agents, beauty devices, functional product for anti-hair loss, dandruff/itch relief, and more.

DERMAPRO possesses various systems integrated with the latest technologies optimized for hair/scalp evaluations, such as RUMBA® - a system that visualizes curling and alignment by capturing the angle of hair alignment in different colors., HairMetrix® - a high-resolution device that captures images of the scalp and hair, enabling automatic analysis of hair thickness and density (counts)., SEM (Scanning Electron Microscope) - capable of real-time imaging of the hair cuticle layer., Fibra One®- an all-in-one system for measuring hair properties, including hair cross-sectional area and other physical characteristics., DermaLab® - a device for measuring scalp moisture levels, and Meibometer® - for measuring scalp sebum output levels.

Based on these systems, DERMAPRO is developing hair/scalp evaluation methods as well as conducting continuous researches.



[Evaluation Parameters]

- Hair Property Evaluation: Tensile strength, roughness, combing coefficient, shine, friction, static electricity, cross-sectional area, elasticity, volume, curling, alignment, color, etc.
- Hair Loss-related Evaluation: Hair count using Phototrichogram, hair thickness, number of shed hairs, number of anagen/telogen hairs, hair growth rate, ratio of vellus to terminal hairs, etc.
- Scalp Evaluation: Dandruff, scalp scale, redness, cleanliness, itching, cleansing effect, elasticity, hydration, sebum, temperature(cooling), TEWL, etc.

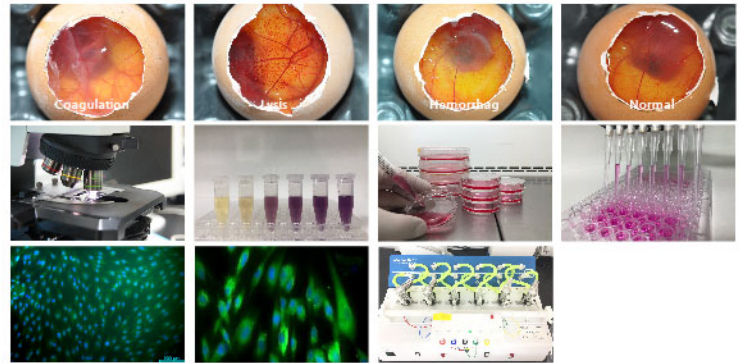
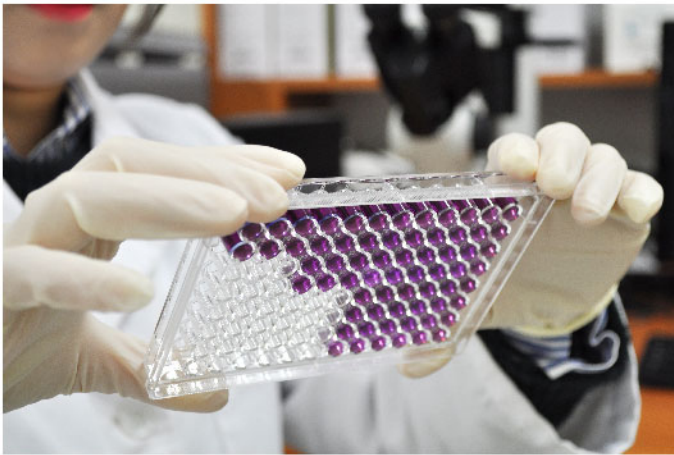
in vitro Assay

& Alternative Method Standardized and Validated Test Methods

Anti-Wrinkle Effect Test / Lightening Effect Test
Hydration Effect Test / Anti-Oxidant Effect Test

Anti-Inflammatory Effect Test / Phototoxicity Evaluation Test
in vitro Skin Absorption Test / *in vitro* Eye Irritation Test
(STE, MCTT-HCE, HET-CAM)

AMES Test / *in vitro* SPF Determination Test



DERMAPRO conducts efficacy experiments using *in vitro* and *ex vivo* models for various cosmetic materials and formulations using them as well as cosmetics, raw materials and extracts.

Evaluation items include anti-wrinkle, lightening, antioxidant, anti-inflammatory, moisturizing, cytotoxicity, phototoxicity, eye irritation, *in vitro* skin absorption and antibacterial test for hand sanitizer.

DERMAPRO Bio Research Center has reported a LMO research facility with biosafety level 2 and is conducting efficacy evaluation tests using genetically modified cell lines and harmful bacteria. For the safety evaluation of cosmetics, tests are conducted in accordance with the ISO and OECD test guidelines. In addition, we are developing and providing various test methods to identify the mechanism of human efficacy for cosmetics.

Safety

Skin Primary Irritation Test
 Skin Cumulative Irritation Test
 Skin Repeat Insult Patch Test
 Skin Phototoxicity Test
 Human Skin Photosensitization Test
 Human Skin Sting Potential Test
 Safety-In-Use Test on Sensitive skin
 Pediatric Safety-In-Use
 Safety-In-Use Test with multi-racial skin
 Safety-In-Use Test on scalp
 Ophthalmic Safety-In-Use Test

Efficacy

Human Skin Wrinkle Test
 Human Skin Firming Test
 Human Skin Texture Test
 Human Skin Hydration Test
 Human Skin Scale Test
 Human Skin Pore Test
 Human Skin Lightening Effect Test
 Human Skin Cooling Effect Test
 Human Skin Dark Circle Test
 Skin Radiance and Gloss Effect Test
 Human Skin Cellulite Test
 Human Skin Anti-Pollution Test
 Breast Firming Effect Test
 Human Skin Wrinkle Improvement Test
 Damaged Skin Barrier Improvement Effect Test
 Cleansing Effect Test
 Antiperspirant Test
 Puffiness Reducing Effect Test
 Non-Comedogenicity Test
 Make-up Effect Test
 Human Skin Sensitivity Test
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 Human Skin Hydration Improvement Test of Food Supplement
 Acne Skin Improvement Effect Test
 UV-Damaged Skin Recovery Effect Test of Food Supplement
 Human Itching alleviation Test

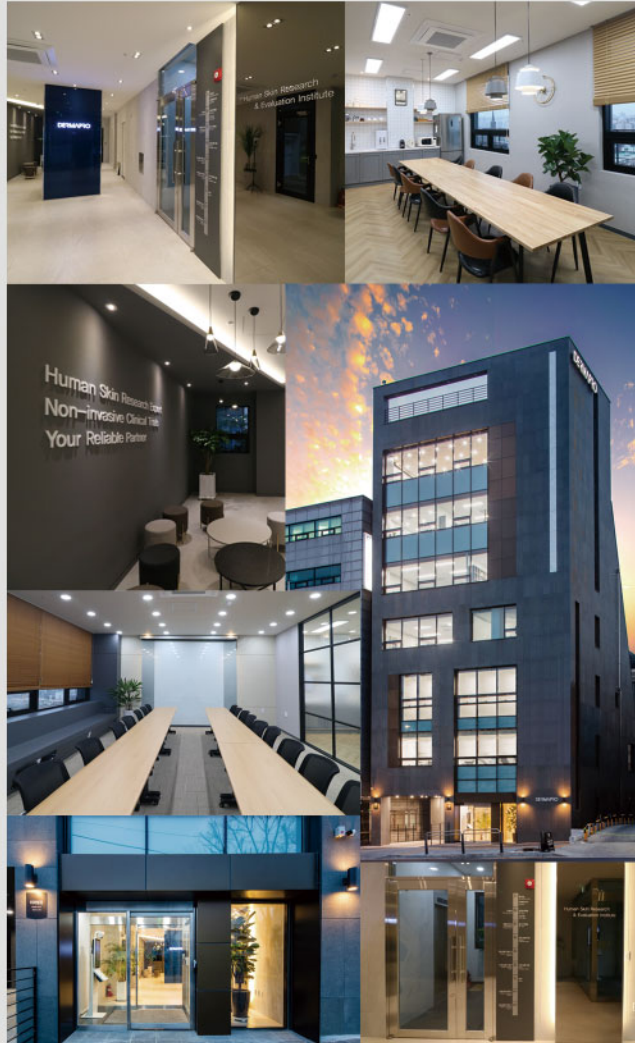
UVA Protection Factor Test
 Sun Protection Factor (SPF) Test
 Water Resistance Test
 Sweat Resistance Test
 UVA Protection Factor in vitro Test
 Blue Light (BL) Test

Scalp Physiology Condition Evaluation
 Hair Physiology Evaluation
 Hair Property Evaluation
 Anti-Hair Loss Effect Evaluation
 Scalp Dandruff and Itching Alleviation Evaluation
 Scalp cleansing effect Evaluation

in vitro

Anti-Wrinkle Effect Test
 Lightening Effect Test
 Hydration Effect Test
 Anti-Oxidant Effect Test

Anti-Inflammatory Effect Test
 Phototoxicity Evaluation Test
in vitro Skin Absorption Test
in vitro Eye Irritation Test (STE, MCTT-HCE, HET-CAM)
 AMES Test
in vitro SPF Determination Test



This image is the interior and panoramic view of the office building.



DERMAPRO

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