

 **KAIRAX**



WWW.KAIRAX.CO.UK

THE SAFE FILLER
Regain Volume, Regain Confidence

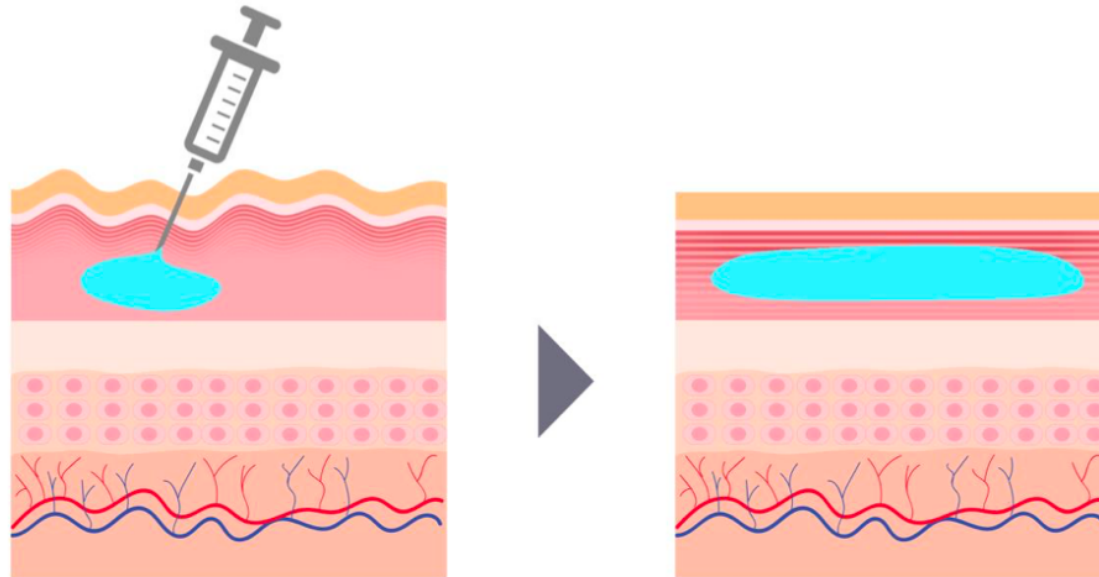


CE-certified product

What is a Filler ?

Filler literally means a “filling material”, a substance injected subcutaneously to improve or correct wrinkles, dents, acne scars and/or facial lines.

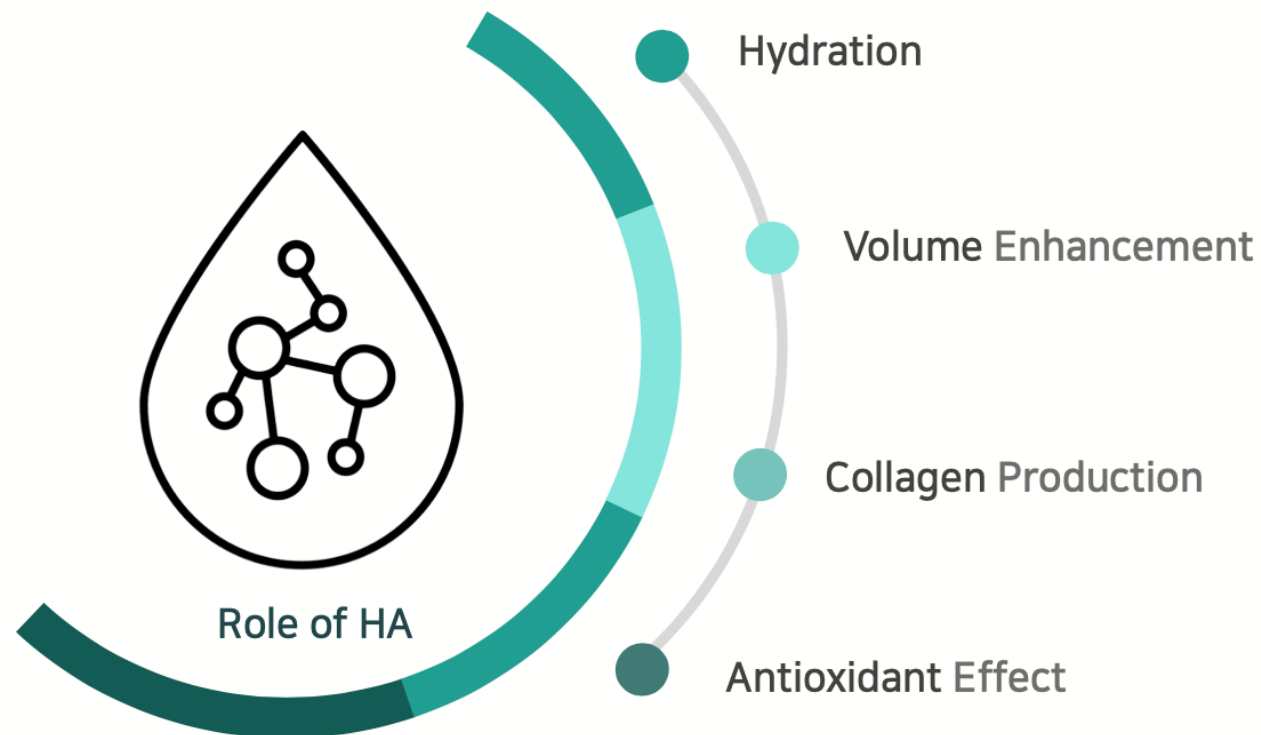
Fillers can be variously classified according to ingredients such as HA, collagen, calcium, PLLA, and etc. Among them, HA fillers are most widely used because of their excellent safety.



What is Hyaluronic Acid?

HA (Hyaluronic Acid) is a hydrophilic substance, which is also commonly called a natural moisturiser.

It can absorb 1000 times the weight of its own weight and has excellent moisture retention. It is 100% biodegradable safe component that exists in the human body.



WHY KAIRAX?

KAIRAX is an HA filler with maximised safety, convenience, and effectiveness based on excellent technology.





Technology

- h-DTP
- Degradation Test



Safety

- Purification Process
- Raw Materials



Convenience

- Extrusion Force
- Types



Effectiveness

- Viscoelasticity
- Scientific Papers

Technology – h - DTP

STEP 1 . Chemical cross-linking



- Minimization of BDDE , a chemical cross-linking agent
(About 60% of common filler BDDE input amount)

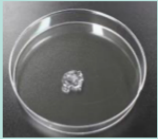
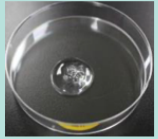
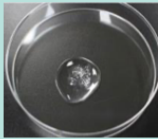
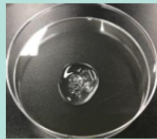
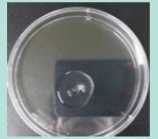
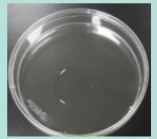
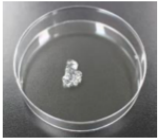
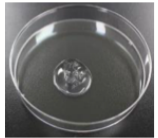
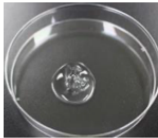
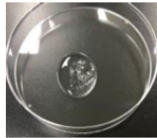
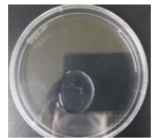
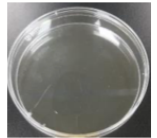
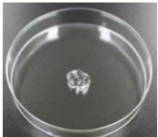
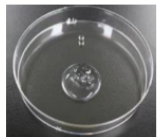
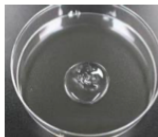
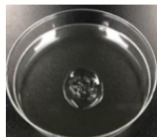
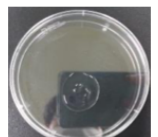
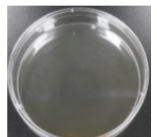


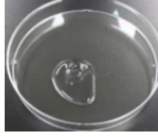
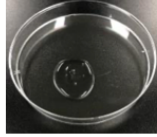
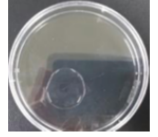
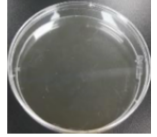
STEP 2 . Physical Cross-linking



- VICTORIASUN core production technology to improve viscoelasticity through physical crosslinking
- Realization of safe, high viscoelastic and cohesive filler
- Patent application number: Patent-2018-0077404

Technology – Degradation Test?

Change over time after injecting 1 ml of hyaluronidase 750 IU into 0.5 ml of **KAIRAX**

Time \ Filler	0 hour	After 3 hours	After 6 hours	After 12 hours	After 24 hours	After 48 hours
KAIRAX						
A Company Filler						
H Company Filler						
M Company Filler						

QTFILL PLUS retains big part of its shape 24 hours after hyaluronidase injection, which shows that it has **high viscoelasticity** and **long duration** compared to other fillers.

On the other hand, 48 hours after the injection, it is completely degraded, indicating that the filler has a **high purity** which results in **minimized side effects**.

Ref. Manufacturer Research Institute



Technology

- h-DTP
- Degradation Test



Safety

- Purification Process
- Raw Materials



Convenience

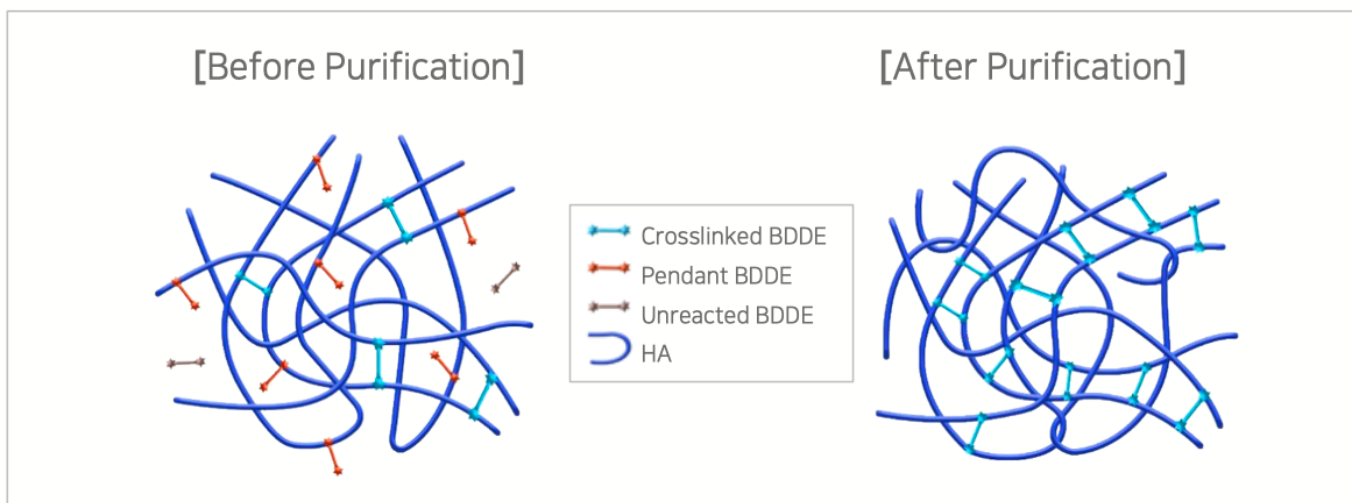
- Extrusion Force
- Types



Effectiveness

- Viscoelasticity
- Scientific Papers

Safety – Purification Process



Impurities such as non-crosslinked BDDE (unreacted BDDE & pendant BDDE) residues and endotoxin residues were **minimized through a strict purification process.**

- BDDE residue : **Below detection limit**
- Endotoxin residue : **Below 0.1Eu/ml**
- Protein residue from HA raw material : **Below 0.1%**

Safety – Raw Materials

SHISEIDO CO., LTD. Kagawa Factory
1120 Nagoya, Kagawa-shi, Shikoku, 436-0047, Japan
Phone: +81-837-24-1131, Fax: +81-837-24-2232

Reference Information

Please find the molecular weight result from the following product for your reference, which is calculated by Laurent's formula.

Product name : Shiseido Sodium Hyaluronate SZE Grade-1P
Lot No. : G0788A
Intrinsic viscosity : 2.4 mL/g
Molecular weight : 1.57 MDa

Date: Apr. 4, 2019
OK manager: Shigeyuki Hasegawa
Quality Assurance
Technical Department
SHISEIDO CO., LTD. Kagawa Factory
Phone: +81-837-24-1131
Fax: +81-837-24-2232

BOCHS CATALAIA, S.L.
Polígono Ind. del Sur
Carrer Marítim / S/N, 12A - 08191 Rubí (Barcelona - SPAIN)
Tel. (34) 93 589 05 20
Fax (34) 93 589 05 13

CERTIFICATE OF ANALYSIS

Product: LIDOCAINE HYDROCHLORIDE MONOHYDRATE Ph. Eur. 9/SEP 42 Code: 74850
Batch No: 979 Manufacture: 05/2019 Re-test Date: 05/2024
Customer:
Shipment (kg): 15,00 Pallets: 3

TESTS	SPECIFICATIONS	RESULTS
CHARACTERISTICS		
Appearance	Crystalline powder	Conforms
Colour	White or almost white	Conforms
SOLUBILITY		
In Water	Very Soluble	Conforms
In Ethanol (94%)	Freely Soluble	Conforms
In Chloroform	Soluble	Conforms
In Ether	Insoluble	Conforms
IDENTIFICATION		
IR Spectrum	Conforms to Std.	Conforms
SPIC	Conforms to Std.	Conforms
Chloride reaction	Positive	Conforms
SPECIFIC TESTS		
Water (EP)	5.5% to 7.0%	5.24 %
Aspect of solution S	Clear (Max. Ref. 1 opall)	Conforms
Colour of solution S	Colourless (Max. Ref. 8-9)	Conforms
pH (0.5% Sol.)	4.0 to 5.5	4.90

We hereby certify that the above information is authentic and accurate. This batch has been manufactured, including packaging and quality control, in the above mentioned site in full compliance with the GMP requirements. The batch processing, packaging and analysis records were reviewed and found to be in compliance with ICH Q7, EU GMP Part II and 21 CFR Parts 310 & 311.

Released by QV on: 16/04/2019
OK Legend on: 16/04/2019
Signed by: [Signature]
Pilar Gil
QC Manager

Page: 1 / 2

SIGMA-ALDRICH
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sigma.com
Canada USA: techserv@sigma.com

Certificate of Analysis

Product Name: 1,4-Bis(azobenzyl)pyridine - 98%
Product Number: 220992
Batch Number: M402392
Purity: ALDRICH
CAS Number: 2425-79-3
MOL Weight: 252.29 g/mol
Formula: C18H15N3
Purity (GC): 99.99 %
Quality Release Date: 30 MAY 2017

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to literature	Conforms
Purity (GC)	> 99.9 %	99.9 %

Michael O'Leary, Manager
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact technical service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice at packing slip for additional terms and conditions of sale.

Version Number: 1 Page 1 of 1

Pay extra attention to quality control, by using **EDQM listed materials** such as HA (150kDA heavy-molecular raw material), lidocaine, and BDDE to **ensure safety**.



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- Degradation Test



Safety

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Convenience

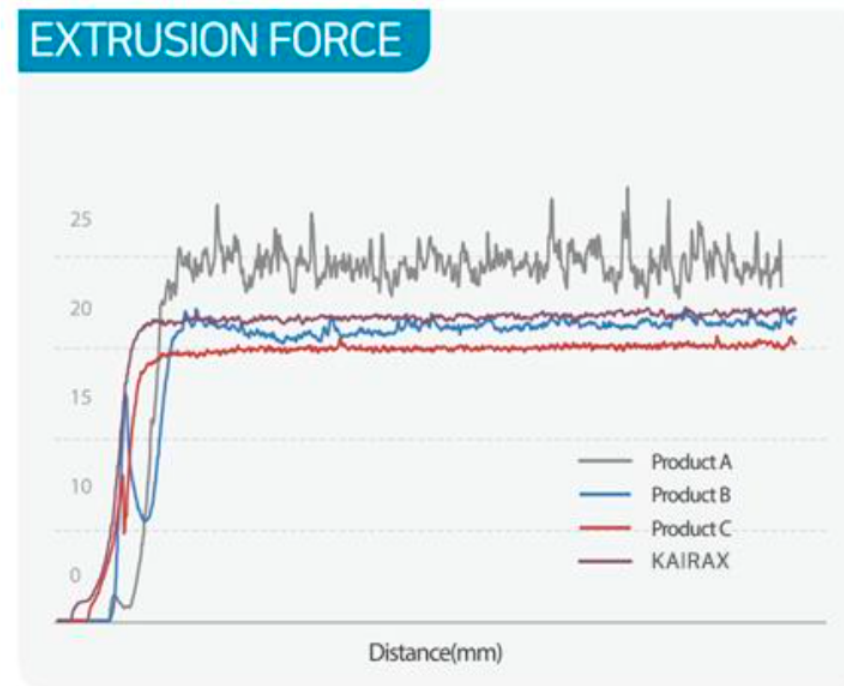
- Extrusion Force
- Types



Effectiveness

- Viscoelasticity
- Scientific Papers

Convenience – Extrusion Force

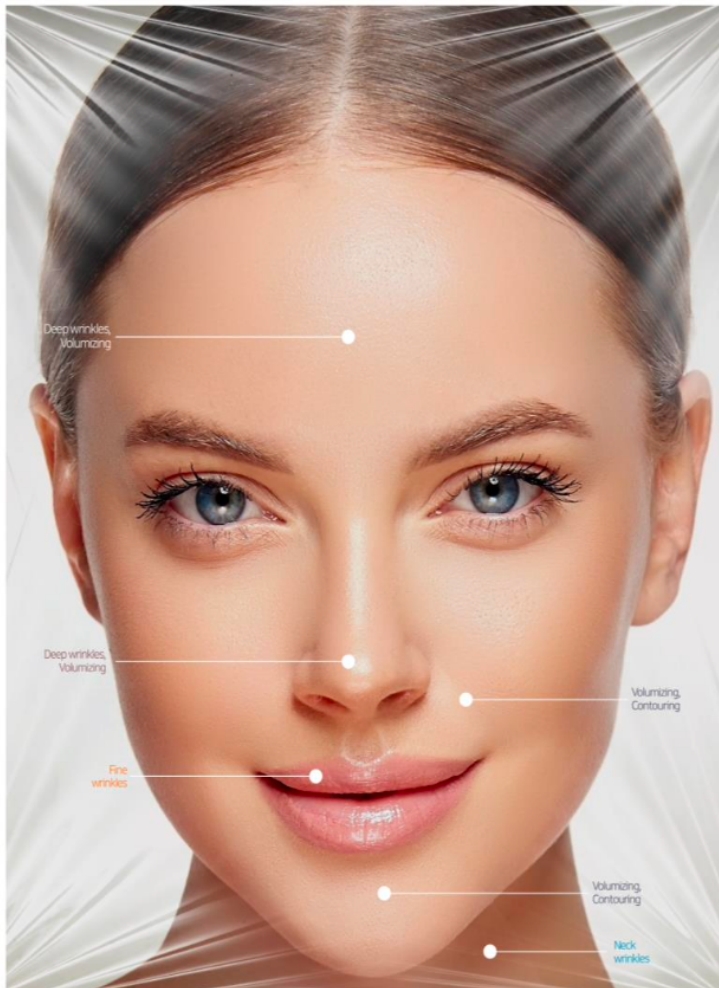








The KAIRAX extrusion force, indicated by a purple line, is a straight line since the initial rise.

This means that when the filler is first injected, the extrusion force is high,
but the injection pressure thereafter is uniform.

Equal pressure increases the convenience of the procedure with a stable and smooth shooting.

Convenience – Types



PRODUCT NAME	KAIRAX FINE	KAIRAX DEEP	KAIRAX SUB Q
TYPE			
GEL			
PURPOSE	Fine wrinkle correction	Deep Wrinkle correction, Volumizing	Volumizing
INDICATION	Periorbital line, Crow's feet, Lip contour	Glabella lines, Nasolabial folds, Marionette lines, Nose/ Lip contour	Nasolabial folds, Chin, Body contour
DURATION	3~6 months	6~12 months	Over 12 months
VISCOELASTICITY	60 ~ 120 pa	120 ~ 220 pa	350 ~ 450 pa

- KAIRAX is divided into **3** types:
- **FINE**, **DEEP**, and **Sub-Q** depending on the viscoelasticity.
- It can be applied from **the entire face to the neck** with the appropriate type of product depending on the application area, required amount, and desired treatment direction, etc.



Technology

- h-DTP
- Degradation Test



Safety

- Purification Process
- Raw Materials



Convenience

- Extrusion Force
- Types



Effectiveness

- Viscoelasticity
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Technology – h – DTP

STEP 1 . Chemical cross-linking



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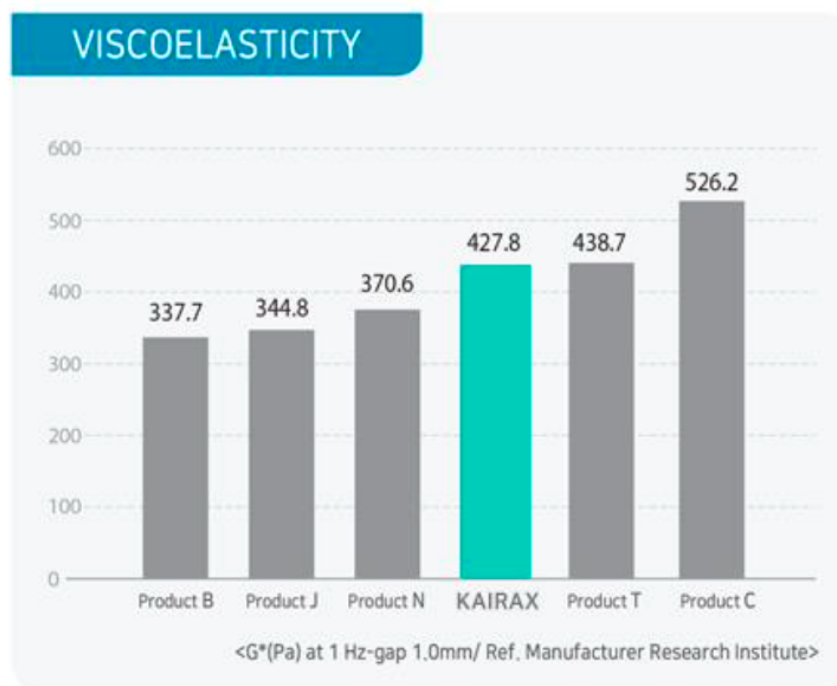
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Effectiveness – Viscoelasticity

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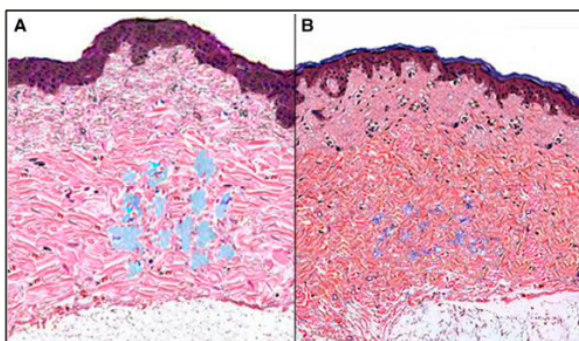


KAIRAX Sub-Q has a viscoelasticity of 427.8 Pa, which belong to a filler with high viscoelasticity.

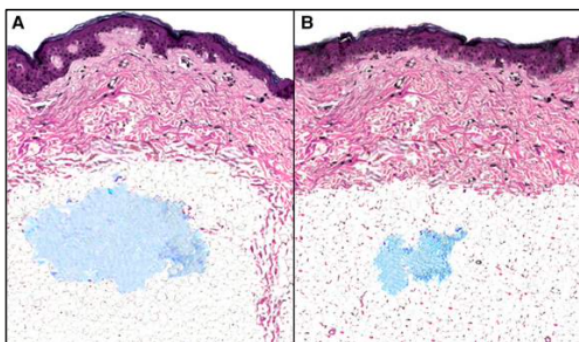
The high viscoelasticity of KAIRAX **maintains the excellent volume effect for a long time.**

Effectiveness – Scientific Papers

『Histological and Quantitative Appraisal of the Intradermal and Subcutaneous Distribution of the Hyaluronic Acid Injected into the Nasolabial Fold』



- A. Small nodules of HA into the NLF dermis 72 h after application.
- B. Significant decrease in diameter and number of the small nodules 9 months after application



- A. A Nodule diameter 72 h after application into the subcutaneous fat.
- B. Moderate decrease in the nodule diameter 9 months after application

Published on March 20, 2020 in [Aesthetic Plastic Surgery](#), a world-renowned academic journal. Author, [ANTONIO CARLOS ABRAMO](#), is a prominent plastic surgeon who actively conducts medical research, surgery, and education in Brazil.

[Summary]

- Comparison by injecting KATIRAX Sub-Q into the dermal layer and subcutaneous layer of folds of wrinkles (sample: 10 persons)
- Filler degradation occurs on the surface of and inside the gel. Dermis splits the filler gel into several nodules due to the tight collagen fibers meshwork, while subcutaneous fat layer is flexible and lightly dense, allowing homogeneous and compact distribution of the gel.
- Therefore, injection into subcutaneous fat layer has longer permanence than injection into dermis.
- KAIRAX Sub-Q acts as an [effective and long-lasting volumizer](#) due to its [high concentration and cohesivity](#), when injected into the subcutaneous layer of the NFL (nasolabial fold).

This paper demonstrates that [KAIRAX is effective HA filler for nasolabial folds](#).

Before & After

Male / 30Y

Forehead
Temple

KAIRAX **Sub-Q**
KAIRAX PLUS **DEEP**



Male / 36Y

Under eye
Nasolabial folds

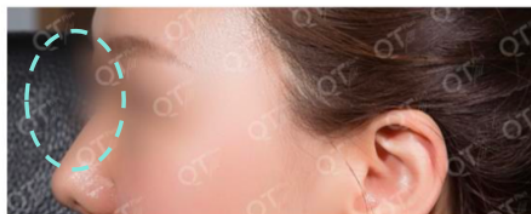
KAIRAX **Sub-Q** & **FINE**
KAIRAX **Sub-Q** & **FINE**



Female / 28Y

Nose

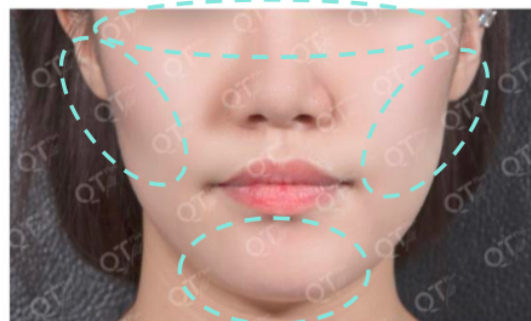
KAIRAX **Sub-Q** & **DEEP**



Female / 25Y

Under eye
Cheek
Chin
(Asymmetry
correction)

KAIRAX **DEEP** & **FINE**
KAIRAX **DEEP** & **FINE**
KAIRAX **DEEP** & **FINE**





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