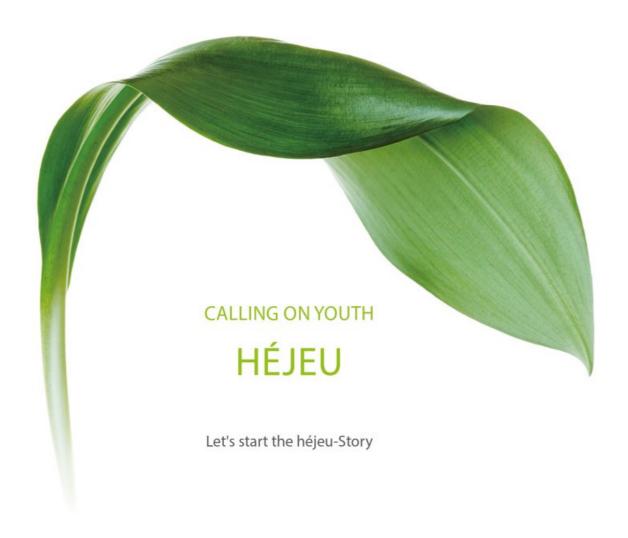
# héjeub<sub>0</sub>



## héjeu story







### What is the message of the héjeu-story?

Enhances the inherent beauty of every single person.

For more natural treatment, intensity control is needed.

It's the operator-friendly and patient-satisfied 'Calling on youth', HÉJEU.

### What is the identity of the héjeu-symbol?



#### What is the theme of the héjeu-color?

The human eye can identify more green shades than any other color.

So the green spectrum that we can see is also the widest.

Green is the most 'natural' shade and symbol of 'regeneration'.

A fresh color of life and regeneration, "hejeu-green" expresses "young-green" in color.



héjeubo —



hé Hé HEY jeu Jeune YOUNG

bo BOTULINUM TOXIN

### HÉJEUBO

It's a compound word based on French that has a good nuance and connotation. It contains the meaning of "find your youth through HÉJEUBO"".

## héjeubo



HÉJEUBO inj. 100 units CLOSTRIDIUM BOTULINUM TOXIN TYPE A







CALLING ON YOUTH



ALC UPERATION



JUVENATIO





### HÉJEUBO® IS A VERIFIED BOTULINUM TOXIN

Verified One

01

STRICT POTENCY MANAGEMENT

Strict internal potency standards

Verified Two

02

APPLICATION OF VERIFIED DRYING METHOD

Application of the "botulinum toxin-specific vacuum drying" method suitable for the infinitesimal amount of protein

Verified Three

03

VERIFIED EFFICACY AND SAFETY

Application of drug (new drug) development process based on global standards

Verified Four

04

UTILIZATION VERIFIED FACILITIES/EQUIPMENT

Global Pharmaceutical GMP-based Production System

### héjeubo

## Verified Verified

### STRICT POTENCY STANDARDS OF HÉJEUBO®



### héjeubo



### VERIFIED DRYING METHOD OF HÉJEUBO®



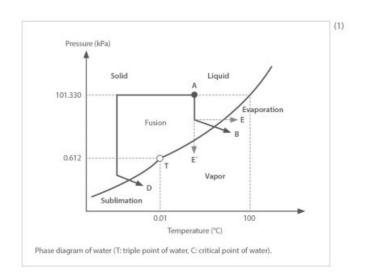
### HÉJEUBO® applied "botulinum toxin-specific vacuum drying" method suitable for the infinitesimal amount of protein.

#### Freeze Drying (A → D)

The Product should be first frozen by decreasing its temperature, then the water vapor pressure should be lowered below the pressure corresponding to the triple point, and finally some heat should be supplied to help the ice to convert into vapor by sublimation.

#### Vacuum Drying (A → B)

If a product being at a pressure and temperature corresponding to ambient condition(marked the point A)is to be dried by vacuum drying, then it should follow the line from A to point B.



	Freeze Drylng	HÉJEUBO® (Vacuum Drying)	
Inactive Protein	1	1	
Deformation of Raw Materials	1	<b>↓</b>	
Energy Consumption	High	Low	
Efficiency of Production	Low	High	
Drying Method	Drying after freezing	Evaporation	
Drying Time	Long	Short	
Cake Appearance	Non-uniform (cracked)	Uniform	

Ref. (1) Drying Technologies in Food Processing, Wiley-Blackwell July 2008 (2) Korean J. Medicinal Crop Sci. 22(4): 225 - 261 (2014) Walters et al., JOURNAL OF PHARMACEUTICAL SCIENCES / jps.23998 Drug Discovery Today: Technologies Vol. 5, No. 2-3 2008

International Journal of Food Engineering Vol. 4, No. 2, June 2018





Verified Thre

03

### VERIFIED EFFICACY AND SAFETY OF HÉJEUBO®



### HÉJEUBO® is a product that has verified efficacy and safety through Preclinic Study of the global standard.

#### PRECLINICAL STUDY

Category	Study Type	Study Object	Study Contents		
Cil- D T1-1- Chl-	Rat	A test in which a drug is administered to an animal under test once and the toxicity occurring within a			
	Single Dose Toxicity Study	Monkey	certain  period of time is quantitatively and qualitatively determined		
		Rat	A test to investigate the toxicity of an animal being tested when it is subjected to a substance after a		
Repeated Dose Toxicity Study	Monkey	certain period of time			
loxicity	Toxicity Embryo-Fetal Development Toxicity Study		Rat	A test to determine how the substance that you want to test causes mammals to reproduce and	
		Rabbit	develop		
Other toxicity tests	Rat/Monkey	It can be performed as part of a single or repeated toxicity test, and detailed clinical and pathological evaluation of the injection site is conducted			
222	Cardiovascular System	CHO hERG cells			
Safety Pharmacology	Respiratory System	Rat	A study on the possibility of undesirable pharmacological effects from administration in animals under test		
ritaritacology	Central Nervous System	Mouse	1031		
Efficacy Comparison	Efficacy Study	Mouse	Comparing the effectiveness of a trial drug against a reference drug		

### TOXICITY TEST

	IEST Type	Doses (U/kg)
7		0
4	Cinala Dana	6
	Single Dose 30	30
Injection into lateral gastrocnemius of Rat		150
		0
	Demostral Dage	1.5
	Repeated Dose	3
		30 150 0 1.5
		0
	Embryo-Fetal	1
	Development	3
		9

	TEST Type	Doses (U/kg)	
-		0	
	Single Dose	8	
		16	
		0	
Injection into lateral gastrocnemius of Monkey - Intramuscular	Repeated Dose	0	
		2	
		4	
		-	
		2	
	-	-	
		-	

	TEST Type	Doses (U/kg)
-0		-
		-
		-
		-
Injection into lateral gastrocnemius of Rabbit - Intramuscular		
		-
		-
		0
	Embryo-Fetal	0.1
	Development	0.2
		0.4

#### SAFETY PHARMACOLOGY TEST

	TEST Type	Doses	
CHO hERG cells		0	
	- 1	0.125	
	Cardiovascular	0.25	U/m
in vitro	System	0.5	
		1	
Rat - Intramuscular		0	
	Respiratory	1.5	
	System	3	
		6	U/ko
Mouse - Intramuscular		0	U/Kg
	Central Nervous	1.5	
	System	3	
		6	

### EFFICACY COMPARISON

	TEST Type	Doses	Comparison
Mouse	Efficacy -	0	
		0.125	Company A
		0.25	
		0.5	

## héjeubo



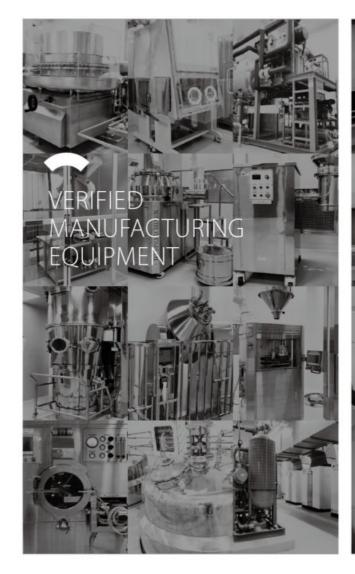
Verified Four

04

HÉJEUBO® UTILIZES VERIFIED FACILITIES/EQUIPMENT



HÉJEUBO® is produced through Global Pharmaceutical GMP-based Production System.









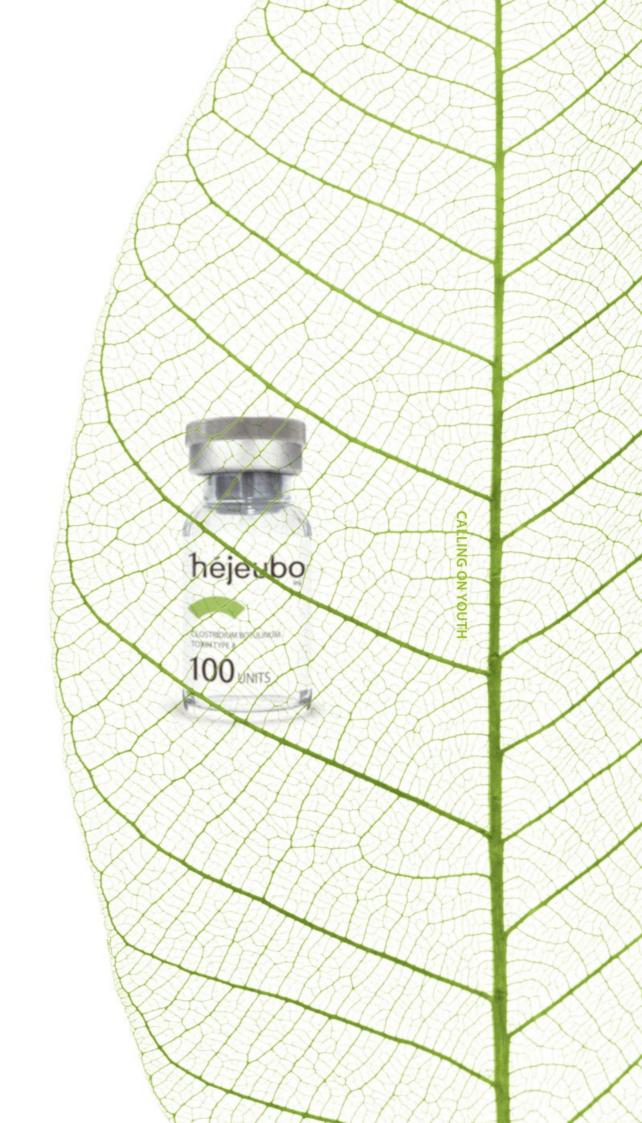
HÉJEUBO inj. 100 units CLOSTRIDIUM BOTULINUM TOXIN TYPE A

HÉJEUBO® IS A VERIFIED BOTULINUM TOXIN











### HÉJEUBO® SPECIFICATION

ACTIVE INGREDIENT	Clostridium botulinum toxin type A
CONTENTS (1 VIAL)	Clostridium botulinum toxin type A_100 units
	Human Serum Albumin_0.5 mg
	Sodium chloride_0.9 mg
APPEARANCE	A white or slightly yellow dried product in a clear
	colorless vial and clear transparent solution
	when dissolved in saline
EFFECT	Temporary improvement of moderate to severe
	wrinkle lines (such as glabellar lines) in adult patients
MECHANISM	A temporary reduction in muscle activity for
	medical and aesthetic use





