ReNTOX™ Information

Composition
Clostridium botulinum toxin type A 100IU

Indication
Temporary improvement of serious glabellar wrinkles ranging from moderate to severe associated with corrugators muscle and/or procerus muscle activities in adults aged between 18 and 65

Dosage and Administration
1. Preparation and Dilution Technique
Reconstitute ReNtox™ with sterile, preservative-free saline diluent (0.9% Sodium Chloride) to make 100 U/2.5 mL (4 U/0.1 mL).

[Dilution Technique]
Prior to intramuscular injection, reconstitute each freeze-dried vial of ReNtox™ with sterile, preservative-free saline diluent. Draw up the proper amount of saline diluent in the syringe of appropriate size. Since this product is denatured by bubbling or similar violent agitation, the diluent should be injected gently into the vial. Discard the vial if a vacuum does not pull the diluent into the vial. Gently mix ReNtox™ with the saline diluent by rotating the vial. Record the date and time of reconstitution on the space of the label. The product should be administered within 24 hours after reconstitution. During this period, reconstituted product should be stored in a refrigerator (2-8°C). Reconstituted product should be clear, colorless and free of particulate matter. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. Because this product and the diluent do not contain any preservative, one vial of this product should be used for a single patient.

[Dillution Table]

Dilution information	
Diluent added	Resulting Dose Units
(0.9% sodium chloride)	(Units/0.1ml)
1.0 mL	10.0 Units
2.0 mL	5.0 Units
4.0 mL	2.5 Units
8.0 mL	1.25 Units

Note: These dilutions are calculated for an injection volume of 0.1 mL. A decrease or increase in does is also possible by administering a smaller or larger injection volume from 0.05 mL (50% decreases in dose) to 0.15 mL (50% increase in does).

2. Injection
Using a 30-gauge needle, inject a dose of 0.1 mL into each of 5 sites, 2 in each corrugators muscle and 1 in procerus muscle, for a total of 20 U. (Please see the picture below)
To reduce the complication of ptosis, avoid injection near the levator palpebrae superioris, particularly in patients with larger brow depressor complexes. Injections into inner corrugators muscle and central eyebrow should be placed at least 1 cm above the bony supraorbital ridge.
Careful attention should be paid to avoid injection of ReNtox™ into the blood vessel. To prevent exudation below the orbital ridge, be sure to firmly place the thumb or index finger below the orbital ridge, prior to injection. The needle should be toward the upper center during injection and careful attention should be paid to inject accurate volume. Glabellar facial lines arise from the activity of corrugator muscle and orbicularis oculi muscle. These muscles move the brow medially, and the procerus muscle and depressor supercilia muscle pull the brow inferiorly. This creates a frown or glabellar lines. The location, size, and use of the muscles vary markedly among individuals. An effective does for facial lines is determined by gross observation of the patient's ability to activate the superficial muscles injected. Each treatment lasts approximately 3~4 months. More frequent injection of ReNtox™ is not recommended because the safety and efficacy are not established.

Description
It appears as a lyophilized white powder for injection in a colorless transparent vial and should become colorless transparent liquid when the diluent (normal saline) is added. .

Storage conditions
Store at 2-8°C

ReNTOX™

100 UNITS

Botulinum Toxin Type A

AUKO
BEAUTY PROF COMPANY

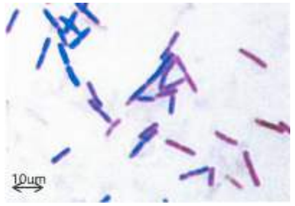
ReNTOX™

ReNTOX™ Identification

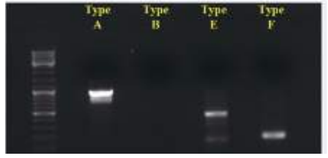
Clostridium Botulinum Toxin Type A Confirmed

Clostridium botulinum was confirmed with Gram staining and the strain was confirmed as Type A by PCR.
Botulinum toxin A subtype protein was confirmed by SDS-PAGE.

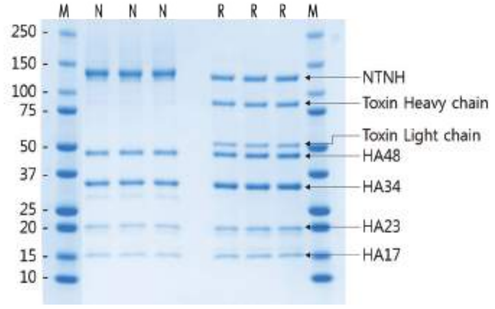
Gram Positive, Rod-shaped



Serotyping result: Type A (PCR)



SDS-PAGE

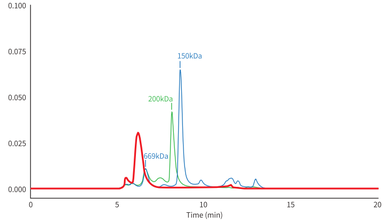


ReNTOX™ protein Size

Toxin Molecular weight Confirmed

The molecular weight of ReNTox™ protein has confirmed through other toxin products.

Molecular weight : 927 kDa

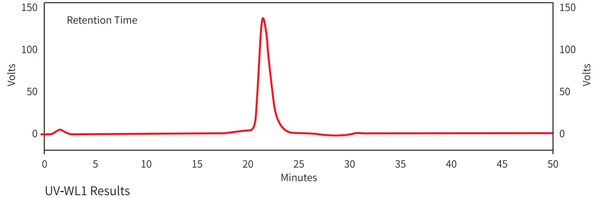


Standard protein and sample	
Protein Size(kDa)	Run Time(min)
150	8.60
200	8.21
669	6.64
927	6.26

ReNTOX™ Purity

Highly purified Toxin: 99.6%

ReNTox™ is a highly purified product manufactured by purification process.



UV-WL1 Results

Retention Time	Area	Area %	Height	Height %
17.793	160310	0.40	0	0.00
21.460	40271659	99.60	536532	100.00

ReNTOX™ Efficacy

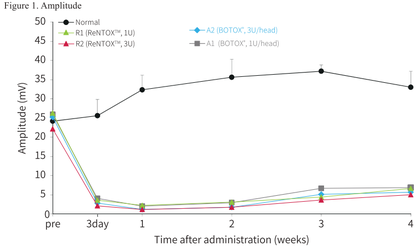
In vivo Efficacy Confirmed

According to electromyography test in rat, ReNTox™ shows equivalent efficacy compared to Botox®

Electromyography(EMG) in Rat

Group	Dose (U/mL/head)	Number
normal	None	6
R1 (ReNTOX™)	1/0.01	6
R2 (ReNTOX™)	3/0.03	6
A1 (Botox®)	1/0.01	6
A2 (Botox®)	3/0.03	6

Figure 1. Amplitude



ReNTOX™ Pre-Clinical Study

Toxicity study in Monkey

Completed the pre-clinical studies in monkey that is most genetically and physiologically similar to humans. Toxicity of ReNTox are proved in various pre-clinical studies.

Study Type	Route	Test system	Doses
Safety Pharmacology			
Effects on Central Nervous System	IM	Rat/Sprague Dawley	0, 3, 10, 30 unit/kg
Effects on Central Nervous System	IM	Rat/Sprague Dawley	0, 3, 6, 12 unit/kg
Effects on Cardiovascular system	IM	hERG Cells	0, 3, 6, 12 unit/kg
Toxicology			
Single dose	IM	Rat/Sprague Dawley	0, 6, 30, 150 unit/kg
Repeated dose (4weeks)	IM	Rat/Sprague Dawley	0, 2, 4, 8 unit/kg/week
Repeated dose (2weeks)	IM	Monkey/Cynomolgus	0, 4, 8, 16 unit/kg/week
Repeated dose (4weeks)	IM	Monkey/Cynomolgus	0, 3, 6, 12 unit/kg/week