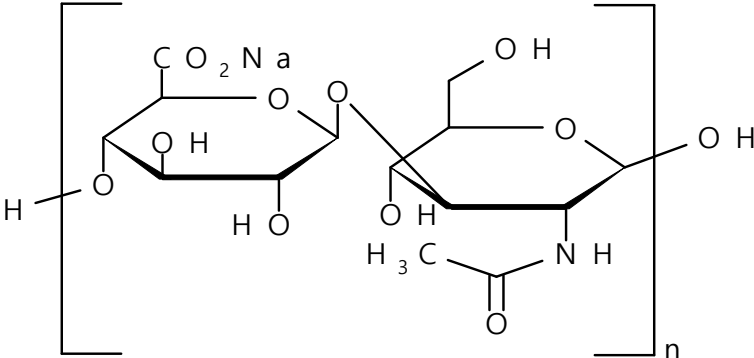


**ATRI
& ATRI PLUS INJ.
[SODIUM HYALURONATE]**

INTRODUCTION

* GENERAL INFORMATION of SODIUM HYALURONATE

International Non-Proprietary Name	:	Sodium Hyaluronate
Chemical Name/IUPAC	:	D-glucuronic acid- β -1,3- -N-acetylglucosamine- β -1,4
CAS No.	:	9067-32-7
Structural formula	:	 <p>The structural formula shows a repeating unit of sodium hyaluronate enclosed in large square brackets with a subscript 'n'. It consists of two pyranose rings linked together. The left ring is a D-glucuronic acid derivative in its cyclic form, with a sodium carboxylate group (-CO₂Na) at the C5 position and hydroxyl groups (-OH) at the C2, C3, and C6 positions. The right ring is an N-acetylglucosamine derivative in its cyclic form, with a hydroxyl group (-OH) at the C2 position, an N-acetyl group (-NHCOCH₃) at the C2 position, and hydroxyl groups (-OH) at the C3 and C6 positions. The two rings are connected by a β-1,3-glycosidic bond between the C1 of the glucuronic acid ring and the C3 of the N-acetylglucosamine ring, and a β-1,4-glycosidic bond between the C1 of the N-acetylglucosamine ring and the C4 of the glucuronic acid ring.</p>

INTRODUCTION

* GENERAL INFORMATION of SODIUM HYALURONATE

Molecular formula	:	$(C_{14}H_{20}NNaO_{11})_n$
Molecular weight	:	$(401.30)_n$
Pharmacopoeia Monographs	:	Ph. Eur. 7 th Ed.
Characteristics	:	White or almost white, very hygroscopic powder or fibrous aggregate. Sparingly soluble or soluble in water
Origin	:	Fermentation from streptococcus equi

INTRODUCTION

* MANUFACTURER OF RAW MATERIAL
[Sodium Hyaluronate]

; HUMEDIX CO., LTD.

(Plant is located in KOREA)

→ The manufacturing process of Sodium hyaluronate starts with fermentation which is composed of 2 seed culture steps and main culture step.

PRODUCT

ATRI INJ.



1) Product Name : Atri Inj.[Pre-Filled]

2) Description

; Viscous solution consisting of
low molecular weight
(1,000,000~1,500,000 da)

3) Ingredient

; Each **2.5ml** pre-syringe contains **25mg** of
Sodium Hyaluronate

4) Indication

; Deformative osteoarthritis of the knee
or shoulder periartthritis

PRODUCT

ATRI INJ.

5) How Supplied

; For adults, administer 1 syringe per week to the articular cavity of knee or articular cavity of shoulder(shoulder joint, intra-subacrominal bursa, intra-biceps tendon sheath) **five times continuously in weekly intervals** and increase and decrease the frequency according to symptoms.

This medicine injects to intro-articular cavity of knee therefore administrate under strict aseptic operation.



PRODUCT

What is ATRI INJ.?

Atri Inj. is manufactured by YooYoung Pharmaceutical company which has the low molecular weight(1,000,000~1,500,000 Da). Atri Inj. can provide osteoarthritis pain relief without surgery. Successful treatment can help reduce or stop pain in an osteoarthritic knee, shoulder and ankle allowing increased mobility and a higher and more comfortable level of activity. Injected directly into a joint such as the knee, shoulder, or ankle, Atri Inj. replaces damaged joint fluid with a natural elastoviscous substance that has cushioning and lubricating abilities similar to those of normal, healthy joint fluid.

Atri Inj. all made in state-of-the-art facilities in complete Compliance with Good Manufacturing Practice.

PRODUCT

ATRI PLUS INJ.

- 1) Product Name : Atri Plus Inj.[Pre-Filled]
- 2) Description
; Viscous solution consisting of
High molecular weight
(2,500,000~3,000,000 da)
- 3) Ingredient
; Each **2.0ml** pre-syringe contains **20mg** of
Sodium Hyaluronate
- 4) Indication
; Deformative osteoarthritis of the knee
or shoulder periartthritis



PRODUCT

ATRI PLUS INJ.

5) How Supplied

; For adults, administer 1 syringe per week to the articular cavity of knee or articular cavity of shoulder(shoulder joint, intra-subacrominal bursa, intra-biceps tendon sheath) **three times continuously in weekly intervals** and increase and decrease the frequency according to symptoms.

This medicine injects to intro-articular cavity of knee therefore administrate under strict aseptic operation.



PRODUCT

What is ATRI PLUS INJ.?

Atri Plus Inj. is manufactured by YooYoung Pharmaceutical company which has the high molecular weight(2,500,000~3,000,000 Da). Atri Plus Inj. can provide osteoarthritis pain relief without surgery. Successful treatment can help reduce or stop pain in an osteoarthritic

knee, shoulder and ankle allowing increased mobility and a higher and more comfortable level of activity. Injected directly into a joint such as the knee, shoulder, or ankle, Atri Plus Inj. replaces damaged joint fluid with a natural elastoviscous substance that has cushioning and lubricating abilities similar to those of normal, healthy joint fluid.

Atri Plus Inj. all made in state-of-the-art facilities in complete Compliance with Good Manufacturing Practice.

PRODUCT

* ATRI INJ. & ATRI PLUS INJ.

	ATRI Inj.	ATRI PLUS Inj.
Intrinsic Viscosity	1.4 m ³ /kg	3.3 m ³ /kg
Molecular Weight	1 Million Dalton	2.5 Million Dalton
Strength	25mg/2.5mL	20mg/2.0mL
Dosage	5 times continuously in weekly intervals	3 times continuously in weekly intervals
Storage	Place at room temperature(1-30°C)	

EXPORT STATUS

PRODUCT	COUNTRY	CLASSIFICATION
ATRI INJ.	EUROPE	Medical Device
	JAPAN	CMO
	RUSSIA	Medicine
	THAI	Medicine
	PHILIPPINES	Medical Device
	VIETNAM	Medicine
	SYRIA	Medicine
	PERU	Medical Device
	JORDAN	Medical Device
	KAZAKHSTAN	Medical Device
ATRI PLUS INJ.	EUROPE	Medical Device
	THAILAND	Medicine
	PERU	Medical Device
	JORDAN	Medical Device