# **Basic Information**

- Place of Origin:
- 10Grams • Minimum Order Quantity:
- Price:
- Packaging Details:
- Delivery Time:
- Payment Terms:
- Supply Ability:
- 1kg/Foil Bag

China

USD



5000KG Per Year



## **Product Specification**

- Product Name:
- Appearance:
- Purity:

• Cas:

99%

51-43-4

L-Epinephrine

White Powder

- Usage:
- Highlight:
- For Allergic Diseases
- CAS 51-43-4, API L-Epinephrine,
  - Epinephrine Powder



**Our Product Introduction** 

## **Product Description**

## API Raw Powder CAS 51-43-4 L-Epinephrine Powder With 99% Min Purity

### Description:

Product name	L-Epinephrine
Appearance	White crystalline powder
CAS	51-43-4
MF	C9H <sub>13</sub> NO <sub>3</sub>
Purity	99%
Storage	Keep in cool dry place.



#### The Introductction of L-Epinephrine

L-Epinephrine is a white or off-white crystalline powder extracted from the adrenal medulla of domestic animals (cattle, sheep) or synthesized artificially, and has agonistic effects on both alpha and beta receptors. Adrenaline is a hormone secreted by chromophores in the adrenal medulla.

L-Epinephrine is mainly involved in sympathetic nervous system regulation. Its increased secretion causes increased cardiac activity - faster heart rate, increased cardiac output, higher blood pressure.

It is a white or off-white crystalline powder, odorless and bitter in taste. Very slightly soluble in water, insoluble in organic solvents such as ethanol and chloroform, soluble in mineral acid or sodium hydroxide solution. Unstable in neutral or alkaline aqueous solution, saturated aqueous solution shows weak alkaline reaction.

L-Epinephrine and its salts are easily decomposed and oxidized to pink to brownish red when they meet oxides, bases, light and heat.

#### The Application & Function of L-Epinephrine

#### -Function:

1. Effects on the heart

L-Epinephrine excites β1 receptors in the heart, strengthens myocardial contractility, accelerates conduction, speeds up heart rate, and increases cardiac output; it also dilates coronary vessels and improves myocardial blood supply. It improves myocardial metabolism, which can increase myocardial oxygen consumption and improve myocardial excitability. If the dose is too large or the speed of intravenous injection is too fast, it can cause arrhythmias and even ventricular fibrillation. 2. Effects on blood vessels

L-Epinephrine has both vasoconstrictive and diastolic effects on blood vessels, mainly because of the different types of receptors in each part of the body. It has a strong constricting effect on the blood vessels of skin, mucous membrane and internal organs (e.g. kidney), which are dominated by  $\alpha$  receptors, and a diastolic effect on coronary vessels and skeletal muscle vessels, which are dominated by  $\beta$ 2 receptors.

3. Raise blood pressure

L-Epinephrine excites the heart at the same time, small doses can make systolic blood pressure increase, diastolic blood pressure unchanged or decreased; high doses make both systolic and diastolic blood pressure increase.

4. The effect on smooth muscle

L-Epinephrine agonize bronchial smooth muscle  $\beta$ 2 receptor, can quickly and powerfully relax the bronchial smooth muscle, especially in the bronchial smooth muscle spasm effect is more obvious; on the gastrointestinal tract, bladder smooth muscle relaxation effect is weak, but the sphincter has a contraction effect.

In addition, epinephrine can also agonize  $\alpha$  receptors, constrict bronchial mucosal blood vessels, reduce bronchial mucosal

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edema, and reduce the secretion of bronchial glands. Inhibit smooth muscle peristalsis of gastrointestinal tract, contract the pyloric and ileal sphincters, but when the sphincter spasm, but also has a relaxing effect, also can reduce the secretion of digestive glands. Constrict the iris radial muscle, make the pupil dilate, to have transient membrane animals can cause transient membrane contraction. The effect on the smooth muscle of the uterus is more complex and is mainly related to the species of the animal. In addition, adrenaline excites the respiratory center and raises blood glucose.

#### -Application:

1. As an emergency drug to restore cardiac function: It is commonly used for weak or sudden cardiac arrest caused by anaphylaxis, drowning, infectious diseases, drug poisoning, surgical accidents and heart block. In case of complete cardiac arrest, intracardiac injection can be used, together with effective artificial respiration and cardiac massage.

2. For allergic diseases: subcutaneous or intramuscular injection can treat allergic diseases, such as anaphylaxis, urticaria, bronchial asthma, hoof lobe inflammation, etc. It is also effective for allergic reactions caused by immune serum and vaccines.

3. Application with local anesthetics: add 0.1% epinephrine solution 0.5~1ml per 100ml of local anesthetics to constrict local blood vessels and delay the absorption of local anesthetics, which can prolong the anesthesia time and reduce the toxic reaction of anesthetics.

4. Topical application as local hemostatic drug: 1:5000 1:100,000 solution is used locally to make local vasoconstriction and stop bleeding from nasal mucosa, uterus, gums or surgical site, etc.

#### Other Name of L-Epinephrine:

Simplene Soladren Sindrenina Adrenaline Epinephrine Scurenaline Renostyptin Styptirenal L-Adrenalin Stryptirenal Sphygmogenin L-Adrenaline L-Epinephrine L(-)-Epinephrine L-Adrenaline base Epinephrine, L(-)-4-[(1R)-1-hydroxy-2-(methylamino)ethyl]benzene-1,2-diol I-3,4-Dihydroxy-alpha-(methylaminomethyl)benzyl alcohol (2S)-2-(3,4-dihydroxyphenyl)-2-hydroxy-N-methylethanaminium (2R)-2-(3,4-dihydroxyphenyl)-2-hydroxy-N-methylethanaminium

### The COA of L-Epinephrine

Batch No.: HNB2212	04	
Product Name: L-Epi	nephrine	
CAS No.: 51-43-4		
Manufacture Date: D	ec.4 <sup>th</sup> ,2022 Expiry Date: Dec.3 <sup>th</sup> ,2024	
Sample Date: Dec.5 <sup>ti</sup>	<sup>h</sup> ,2022 Alalysis Date: Dec.5 <sup>th</sup> ,2022	
	ol&dry place, in well-closed containers.	
	when properly stored.	
Reference standard:	USP38	
ITEMS OF ANALYS	IS SPECIFICATIONS	RESULT
	White or off-white crystalline powder	RESULT Complies
Appearance		
Appearance Identification	White or off-white crystalline powder	Complies
Appearance Identification	White or off-white crystalline powder Complies	Complies Complies
Appearance Identification Specific rotation Adrenalone	White or off-white crystalline powder Complies -50°~-54°	Complies Complies 52.5°
Appearance Identification Specific rotation Adrenalone Norepinephrine	White or off-white crystalline powder   Complies   -50°~-54°   ≤0.2(A310nm)	Complies Complies 52.5° 0.037
Appearance Identification Specific rotation Adrenalone Norepinephrine Loss on drying	White or off-white crystalline powder   Complies   -50°~-54°   ≤0.2(A310nm)   ≤ 2.0%	Complies Complies 52.5° 0.037 Not Detected
Identification Specific rotation	White or off-white crystalline powderComplies $-50^{\circ} \sim -54^{\circ}$ $\leq 0.2$ (A310nm) $\leq 2.0\%$ $\leq 2.0\%$	Complies Complies 52.5° 0.037 Not Detected 0.42%

+8613343428632

RedBird WuHan RedBird Biotech Co,Ltd.

HanYang District JiangDi Road Wolong Ink Lake Aside