Lysozyme chloride

Cat. No.: HY-B2237A

CAS No.: 9066-59-5

Target: Bacterial; HIV

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.

Lysozyme chloride

BIOLOGICAL ACTIVITY

Description	Lysozyme chloride is a bactericidal enzyme, and it lyses gram-positive bacteria. Lysozyme chloride can also be used for the research of HIV infection and pulmonary emphysema[1][2][3].
In Vitro	Lysozyme is an ubiquitous enzyme. The hen egg is the most abundant source of Lysozyme, which constitutes approximately 3.4% of the albumen proteins. Lysozyme is a natural antimicrobial that hydrolyzes the β(1-4) glycosidic linkage between N-acetylmuramic acid and N-acetylglucosamine found in the peptidoglycan layer of the bacterial cell wall and causing cell lysis. The bactericidal effect of Lysozyme chloride is primarily limited to gram-positive bacteria, including pathogens such as Listeria monocytogenes and certain Clostridium species as well as some spoilage organisms, including thermophilic spore-forming bacteria and certain yeasts. The gram-negative bacteria are more resistant to Lysozyme chloride action because of their complex cell wall structure[1]. Lysozyme (1 mg/mL) chloride impairs the ability of hyaluronan (HA) to prevent elastase injury to elastic fibers[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Syrian hamsters exposes to aerosolized Lysozyme (20 mg in 20 ml of water; 50 min) chloride prior to elastase administration showes significantly increased airspace enlargement[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Appl Surf Sci. 2020, 145332.
- iScience. 9 October 2022, 105311.
- Pharmaceutics. 2023 Mar 20.
- J Drug Deliv Sci Technol. 21 July 2021, 102714.
- STAR Protoc. 2023 Jun 21;4(3):102358.

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REFERENCES

[1]. Banerjee P, et al. Influence of carbon dioxide on the activity of chicken egg white lysozyme. Poult Sci. 2011 Apr;90(4):889-95.

[2]. Jing T, et al. Magnetic molecularly imprinted nanoparticles for recognition of lysozyme. Biosens Bioelectron. 2010 Oct 15;26(2):301-6.

[3]. Cantor JO, et al. The effect of lysozyme on elastase-mediated injury. Exp Biol Med (Maywood). 2002 Feb;227(2):108-13.

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