

Extracellular Vesicles derived from *Saccharomyces paradoxus* 181211-12 strain

Cat. No. YSEV-R6

Updated on November 4, 2025

www.cosmobiousa.com

【 I 】 Introduction

Exosomes released by cells in multicellular organisms are a type of extracellular vesicles (EVs). They are expected to be applied in pharmaceuticals and cosmetics, and developments are underway in various fields. Meanwhile, similar EVs are also released from unicellular microorganisms, which are spherical structures ranging from 20 to 400 nm. These EVs are involved in inter-microbial and microbe–host cell communication, similar to exosomes.¹ EV production is an essential function for microorganisms, and elucidating the roles of EVs in bacterial interactions or host interactions is expected to lead to applications in vaccine development, gut microbiota research, and drug delivery systems (DDS).²

Yeasts, which are unicellular fungi, have also been reported to produce EVs, and it has been suggested that they are involved in the transport of various bioactive substances.³⁻⁵ *Saccharomyces paradoxus* is considered a parental species of *S. cerevisiae* and possesses excellent fermentation characteristics, including high alcohol tolerance. This product is EVs purified from the culture supernatant of the *Saccharomyces paradoxus* 181211-12 strain using ultrafiltration.*

*The strain *Saccharomyces paradoxus* 181211-12 was independently isolated, cultured, and identified from plant materials and local food ingredients by Professor Akihiro Yamaguchi, Ms. Kurumi Kameda, and laboratory members at the Laboratory of Applied Microbiology, Rakuno Gakuen University.

【 II 】 Product Information

COSMO BIO CO., LTD (CSR)

Cat. No.	Description	Quantity	Particle Concentration	Storage
YSEV-R6	Extracellular Vesicles derived from <i>Saccharomyces paradoxus</i> 181211-12 strain	200 μ L	$> 1 \times 10^{10}$ particles/mL in PBS Filter sterilized	4°C

Note: Particle number varies by lot. Please refer to the attached CoA.

【 III 】 Usage

- Sterilized with a 0.22 μ m membrane filter.
- Dilute with appropriate buffer or medium ($10 \times$ – $2000 \times$) according to your experiment.
- Store at 4°C : use as soon as possible after opening.

【IV】 Reference Data

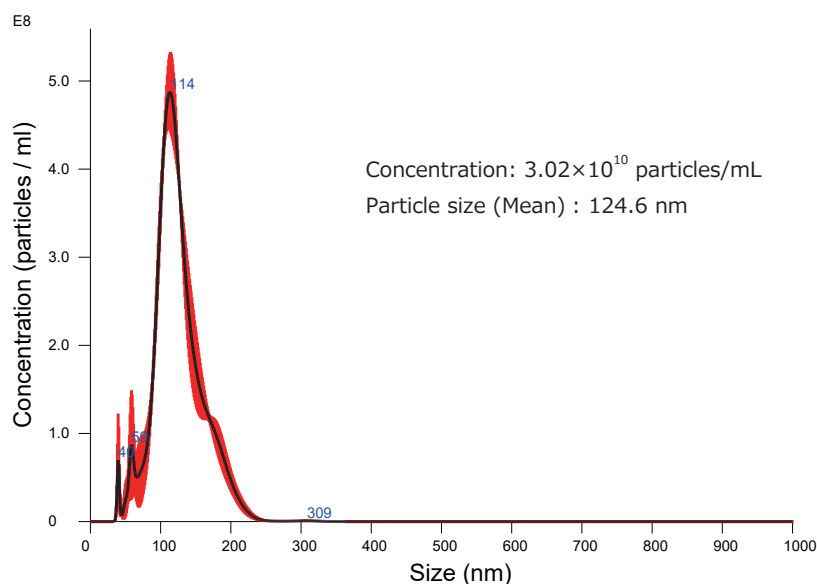


Figure 1. Particle size distribution of EVs derived from *Saccharomyces paradoxus* 181211-12- strain

【V】 References

1. Obana, N., Kurosawa, M., Toyofuku, M. & Nobuhiko, N. Biogenesis and Functions of Membrane Vesicles Actively Produced by Microbes. *KAGAKU TO SEIBUTSU* **54**, 812–819 (2016).
2. Obana, N. & Nomura, N. Functions and biosynthesis of membrane vesicles produced actively by Gram-positive bacteria. *Japanese J. Lact. Acid Bact.* **27**, 10–16 (2016).
3. Oliveira, D. L. et al. Characterization of yeast extracellular vesicles: Evidence for the participation of different pathways of cellular traffic in vesicle biogenesis. *PLoS One* **5**, e11113 (2010).
4. Zhao, K. et al. Extracellular vesicles secreted by *Saccharomyces cerevisiae* are involved in cell wall remodelling. *Commun. Biol.* **2**, (2019).
5. Rizzo, J., Rodrigues, M. L. & Janbon, G. Extracellular Vesicles in Fungi: Past, Present, and Future Perspectives. *Front. Cell. Infect. Microbiol.* **10**, (2020).



COSMO BIO Co., LTD.

【JAPAN】

TOYO EKIMAE BLDG. 2-20, TOYO 2-CHOME,
KOTO-KU. TOKYO 135-0016, JAPAN
Phone: +81-3-5632-9610
FAX: +81-3-5632-9619
URL: <https://www.cosmobio.co.jp/>



COSMO BIO USA

【Outside Japan】

2792 Loker Ave West, Suite 101
Carlsbad, CA 92010, USA
email: support@cosmobiousa.com
URL: www.cosmobiousa.com
Phone/FAX: (+1) 760-431-4600

13304