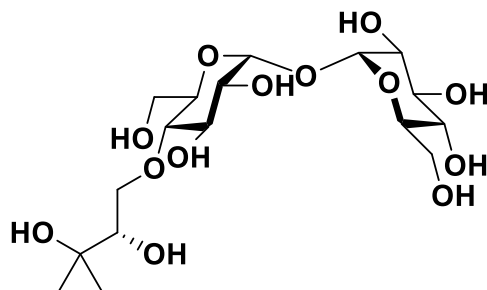


PRODUCT DATA SHEET

Date: Jan. 26, 2022

Lentztrehalose A

(Trehalase Resistant)



Specifications

| | |
|-------------------|--|
| Code No. | : 14678 |
| CAS# | : 1609356-99-1 |
| Molecular Formula | : C ₁₇ H ₃₂ O ₁₃ |
| Molecular Weight | : 444.430 |
| Source | : <i>Lentzea</i> sp. ML457-mF8 |
| Supplied as | : Powder |
| Purity | : >80% (qNMR) |
| Long Term Storage | : at -20 °C |
| Solubility | : Soluble in MeOH, DMSO, H ₂ O Insoluble in Hexane |

Application Notes

Lentztrehalose A is a biologically stable analog of trehalose, isolated from the solid-state culture of *Lentzea* sp. ML457-mF8.^{1,2,3)} While lentztrehalose A is resistant to porcine kidney trehalase and various microbes which degrade trehalose,³⁾ it shows trehalose-like bioactivities, such as bone reinforcement and anti-obesity effect in a postmenopausal mouse model.¹⁾ Furthermore, lentztrehalose A has antitumor activity, which trehalose does not show, in mice bearing S-180 sarcoma and Ehrlich carcinoma cells at 12.5-50 mg/kg per day without apparent toxicity to mammalian cells.¹⁾

References

- 1) Structure and biological properties of lentztrehalose: a novel trehalose analog. Wada S, *et al. J Antibiot.* 2014 **67**(4) 319-322.
- 2) Synthesis and determination of absolute configuration of lentztrehalose A. Zhang M, *et al. Chem Pharm Bull.* 2015 **63**(11) 961-966.
- 3) Stability and bioavailability of lentztrehaloses A, B, and C as replacements for trehalose. Wada S, *et al. J Agric Food Chem.* 2016 **64**(38) 7121-7126.