

PRODUCT INFORMATION



Lentztrehalose A

Item No. 37732

CAS Registry No.: 1609356-99-1

Formal Name: α -D-glucopyranosyl 4-O-[(2S)-2,3-dihydroxy-3-methylbutyl]- α -D-glucopyranoside

Synonym: (+)-Lentztrehalose A

MF: $C_{17}H_{32}O_{13}$

FW: 444.4

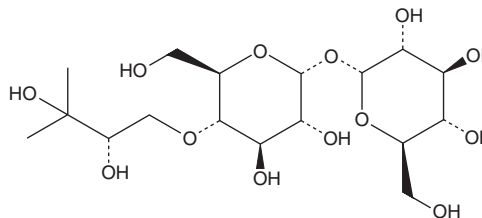
Purity: $\geq 80\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Bacterium/*Lentzea* sp. ML457-mF8



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lentztrehalose A is supplied as a solid. A stock solution may be made by dissolving the lentztrehalose A in the solvent of choice, which should be purged with an inert gas. Lentztrehalose A is soluble in methanol and DMSO. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

Lentztrehalose A is a disaccharide microbial metabolite that has been found in *Lentzea* and has diverse biological activities.¹⁻³ It selectively inhibits *M. smegmatis* trehalase, a trehalose metabolizing enzyme, over porcine kidney trehalase (IC_{50} s = 0.67 and >20 mM, respectively).¹ Lentztrehalose A (100 mM) induces autophagy in MeWo melanoma and OVK18 ovarian cancer cells.² It increases survival percentage and decreases tumor proliferation in a Sarcoma 180 murine sarcoma model when administered at a dose of 50 mg/kg per day.³

References

1. Dhaene, S., Van der Eycken, J., Beerens, K., *et al.* Synthesis, trehalase hydrolytic resistance and inhibition properties of 4- and 6-substituted trehalose derivatives. *J. Enzyme Inhib. Med. Chem.* **35**(1), 1964-1989 (2020).
2. Wada, S., Kubota, Y., Sawa, R., *et al.* Novel autophagy inducers lentztrehaloses A, B and C. *J. Antibiot. (Tokyo)* **68**(8), 521-529 (2015).
3. Wada, S., Ohba, S., Someno, T., *et al.* Structure and biological properties of lentztrehalose: A novel trehalose analog. *J. Antibiot. (Tokyo)* **67**(4), 319-322 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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