

PRODUCT INFORMATION



Blasticidin S (hydrochloride)

Item No. 14499

CAS Registry No.: 3513-03-9
Formal Name: 4-[[[(3S)-3-amino-5-[(aminoiminomethyl)methylamino]-1-oxopentyl]amino]-1-(4-amino-2-oxo-1(2H)-pyrimidinyl)-1,2,3,4-tetraoxy-β-D-erythro-hex-2-enopyranuronic acid, monohydrochloride

MF: C₁₇H₂₆N₈O₅ • HCl

FW: 458.9

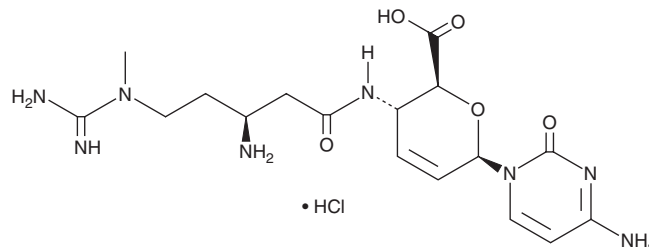
Purity: ≥95%

UV/Vis.: λ_{max}: 269 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

Blasticidin S (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the blasticidin S (hydrochloride) in water. The solubility of blasticidin S (hydrochloride) in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Blasticidin S is a peptidyl nucleoside antibiotic. It was first isolated from *S. griseochromogenes*.¹ The structure of the pentahydrate form was determined using diffractometer data and, similar to the antibiotic amicetin, the hydrophilic and hydrophobic groups lie on either side of the molecule.² It has since been created using total synthesis.³ Blasticidin S (hydrochloride) is used in research to select mammalian cells transfected with the blasticidin resistance gene *bsr*.⁴

References

1. Takeuchi, S., Hirayama, K., Ueda, K., *et al.* Blasticidin S, a new antibiotic. *J. Antibiot. (Tokyo)* **11(1)**, 1-5 (1958).
2. Swaminathan, V., Smith, J.L., Sundaralingam, M., *et al.* Crystal and molecular structure of the antibiotic blasticidin S hydrochloride pentahydrate. *Biochim Biophys. Acta.* **655(3)**, 335-341 (1981).
3. Ichikawa, Y., Hirata, K., Ohbayashi, M., *et al.* Total synthesis of (+)-blasticidin s. *Chemistry* **10(13)**, 3241-3251 (2004).
4. Izumi, M., Miyaza, H., Kamakura, T., *et al.* Blasticidin S-resistance gene (*bsr*): A novel selectable marker for mammalian cells. *Exp. Cell Res.* **197(2)**, 229-233 (1991).

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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